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DEVELOPMENTS IN THE FIELD OF MENTAL TESTING.

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A field of research which has been opened up in recent years is that of mental or psychological tests designed to measure and classify the intellectual capacities of persons. These tests include general intelligence, mental alertness, aptitude, trade, and even educational tests. While their reliability may sometimes be questioned, there is no doubt as to the need for the kind of information they are intended to furnish. They cover a wide field and one in which a far-reaching program may be applied to further the interests and happiness of mankind.

ORIGIN AND PRINCIPLES OF THE TESTS.

The Binet-Simon test.—One of the first formal methods employed for measuring general intelligence was embodied in the "Binet-Simon test," which provided a definite group of questions to be answered by persons of a definite chronological age. This test was developed as a means of classifying a group of under-average individuals for purposes of education. It consisted of a series of 54 tests for children between the ages of 3 and 12, a certain number of questions being assigned to each age group. It was generally conceded that the failure of a child in a certain age group to answer successfully the questions propounded for that age group was evidence of an under-average mentality. These tests were subsequently used and heralded not only as a method of measuring intelligence but as a means for diagnosing the condition known as "feeble-mindedness."

In the light of later discoveries the reliability of Binet's method of classifying persons into mentally normal or abnormal groups was brought into question. The grading of intelligence between the borderline zones of normality and abnormality is so fine that definite classifications by formal tests alone are almost impossible. They should be supplemented by analyses of character traits, the effect these have upon the individual's mental make-up, and their influence in determining his reactions toward the tests.

Physical make-up.—First, the physical make-up and condition of the subject should be considered before a final judgment of abnormal

mentality is pronounced. It is now an undisputed fact that the physical condition of the subject and even the time of day in which an examination is given play an exceedingly important rôle in the quality of work produced.

Affective make-up.—A second element of great significance is that of the affective make-up. Emotionally colored reactions, such as shyness, fright, anger, emotional confusion, inhibitions, lack of attention or concentration, and other affective symptoms may influence the result of the test. They may exist along with the highest type of intelligence or may occur in connection with very defective intelligence. Failure in tests may depend wholly upon the presence of one or more such traits, even though the intelligence content is adequate.

Standarization.—A third element is that of standardization. Binet standardized his tests according to what is known as the age-average-gradation of intelligence. That is, if 75 per cent of the children of a certain age passed the test assigned for them, then he considered the test a normal one for that age. But Binet's standardization was based upon the application of tests to unselected children of the poorer districts of Paris. He did not take into consideration the fact that the elements of environment, training, and race make a great difference in the type of answer given and that questions of a like character given to children of the same ages but of different environment, training, or race might elicit answers of an entirely different nature.

General-age average.—A fourth element is that of finding a general-age average. Individuals do not develop average abilities in all things, nor does the intelligence of the average normal individual develop proportionately. Capabilities are demonstrated in varying degrees among different individuals, and exceptional powers may exist alongside of the most mediocre or even negative abilities. A solution of the general-age average problem as far as the individual's capacity is concerned seems to resolve itself into the development of three distinct types of tests—aptitude tests which will show the subject's inclinations along certain lines; tests showing whether or not the subject has the temperamental qualifications necessary to perform adequately the tasks to which he is suited as shown by the aptitude test; and, third, tests of one or two sorts according to the requirements of the duty to be fulfilled, one measuring the subject's physical qualifications or one measuring his mental alertness. Thus it will be seen that in single measurements of individual capacity, the establishment of a general-age average standard or definite age norm yields to the more important factors of aptitude, temperament, and physical make-up or mental alertness. However, in group tests and in tests measuring only general intelligence, the age norm must be considered.

General considerations of Binet-Simon test.—The pioneer work of Binet in testing the higher and more complex mental processes became public about 1908. His scale of 54 tests contained some 100 questions, the tests being so graded that the easiest lay within the range of the normal 3-year-old child, while the hardest would tax the intelligence of the average adult. The tests comprised many different types, but all were designed to measure general intelligence only.

The defects of the Binet method were as follows: Insisting upon a general-age average; discounting the influence of emotional traits, environment, and physical qualities in the subject; evaluating intelligence through an equation of general ability; and assuming that a child who passed the test for a certain age, say 8, would also pass any test for 7-year-olds. This assumption was incorrect, for not infrequently a subject might pass all the tests of one age group, do irregular work in those of the next age groups, and then pass tests for higher age groups. These defects were tangible. How much more important, then, are those intangible problems of (1) whether or not the examiner really knows just what is being measured by the several tests; (2) whether or not the standard or basis used in weighting tests is satisfactory and genuine; and (3) whether or not the inequality of the separate intellectual functions does not almost preclude the possibility of ever getting even an approximate measurement for any one function when all merge and influence one another to a greater or lesser degree?

Revisions.—The original Binet-Simon intelligence test, or the test as revised, is now very generally used throughout city school systems and aptly serves to make a rapid classification of individuals into normal or subnormal groups. It may not differentiate, or sometimes even accurately classify, the subjects, but it may be stated that, as a general rule and for the purpose it serves—the grading of intelligence—it is fairly reliable. Almost immediately upon the publication of the Binet-Simon test, revisions were begun, one by Goddard and one by Terman. Goddard revised it by shifting questions so that the difficulty of each test for the separate age groups was more nearly balanced. Formerly the scale tended to be somewhat too easy for the lower range and too difficult for the higher. Terman made three revisions, likewise reallocating questions to those groups where they could be better applied, thus insuring a more correct interpretation of results. He also added 27 new tests and some alternative tests to the various age groups.

As time passed, new tests were developed as measurements of general intelligence, and methods were evolved for perfecting and widening this field. Yerkes and Bridges developed the point-scale method of grading intelligence. According to their method, test

questions were assigned a certain number of points. The grading of intelligence was based upon the number of points received for correct answers to questions and the individual was rated in percentage of intelligence. Then came the World War, during which the great possibilities of mental testing were realized and the subject became one of nation-wide and even world-wide significance. Following the growth and gradual perfecting of mental measurements it is interesting to note that mental tests have become more specific, definite, and effective when applied to individuals and when used to determine a single capacity or quality.

DEVELOPMENT OF THE ARMY TESTS.

During the progress of the war, and before the United States became a participant, the British Army began to realize that it had sent to the front in minor capacities a large number of highly skilled tradesmen and professional workmen. Later, when these men were sorely needed, England saw her mistake. The United States, profiting by this experience, undertook in a systematic way to place men drawn from the skilled trades and professions in those positions where their knowledge and skill would be not only immediately available, but of the most value. Industrial concerns throughout the country interested themselves in the matter and readily cooperated in building up tests that would measure skill in trades and facilitate the placing of individuals in positions where they were most needed.

Contrast between Army test and Binet test.—In order to determine a reliable basis for tests, different questions were tried out on large groups of people who varied widely in mental alertness and who were known to the examiners. From this experiment it was found that eight sets of questions differentiated fairly well between bright and dull individuals. These eight sets were organized to make up the Army Alpha intelligence test. Some differences between this test and the Binet-Simon test may be pointed out. The latter test was applied only to children, the former to adults; oral answers were given to the Binet tests, whereas the Alpha test required them in writing; the Binet test was applied to individual subjects, the Alpha test to groups; and the taking of the Alpha test was contingent upon the person's ability to read and write.

Scope of the Army tests.—The Army intelligence test was given to 1,726,966 men, of whom 41,000 were officers. Individual examinations were given to 83,000. The separate tests were carefully planned, tried out at least three or four times, and subjected to repeated revisions to increase their reliability and military value. The task was no small one. The tests were devised and their validity was

checked against every available criterion, such as professional success, school standing, and ranks in the Army, until a high correlation was obtained. Consideration was given to the influence of literacy, the physical condition of the examinee, and the personal equation of the examiner. Finally, three types of tests were evolved and applied to groups, or to individuals if expediency required it. These were the above-mentioned Alpha test, a group examination containing eight tests given to literates who could read and write English well or fairly well and which required but little writing; the Beta test, a group examination containing seven tests given to illiterates and to those who had failed in the Alpha test; and finally individual examinations of two types, one involving the use of English and comprising the Stanford revision of the Binet-Simon scale and the point scale, the other involving no English and consisting of a Performance test, in which the subject was required to perform several small tasks, each slightly more complicated than the preceding. In the Beta test and the Performance test, pantomine and demonstration charts were used to convey instructions. The purpose of the Army tests was to rate natural mental ability—the ability to learn, think quickly and accurately, analyze situations, maintain a state of mental alertness, and comprehend and follow instructions. The results obtained were evaluated according to terms of military needs only, and men with a certain average of intelligence were selected for occupational assignment according to their rating.

Value of Army tests.—Some concrete examples of how mental tests aided in the organization of our military forces may illustrate more clearly the direct and valuable service which they performed. It was discovered that when soldiers were indiscriminately assigned to regiments without regard to their intelligence, extreme inequalities apppeared in the mental strength of the regiments. This was shown by the quickness with which some regiments developed while others seemed to remain stationary. For example, in one instance 306 soldiers from organizations about to be sent overseas were designated by their commanding officer as unfit for foreign service. A psychological examination proved that 90 per cent of that number were 10 years or less in mental age. Thus, unless intelligence is distributed carefully, no real progressive organization can be built up, for the less capable individuals in any division will hold back those capable of going ahead at a faster rate. And, by the same token, training units can not develop men who are unable to feel a sense of responsibility or grasp the nature of their work.

The Army test was a real attempt to prove the efficacy of psychological measurements and their value for practical use. With each person carefully designated to that occupational or official duty most adapted to his desires, his interest and his intelligence, the organiza-

tion of forces was more complete, the utmost efficiency and speed were secured, and the morale of the Army was given a firmer foundation. Both educational and vocational training were embodied in the Army curriculum. In this way the months or years spent in service were not lost to the individual during the interruption to his civil affairs.

EARLY PROBLEMS IN DEVELOPING MENTAL TESTS.

It might be well to consider a few of the early problems encountered in mental testing: those of administering tests correctly, securing objective ratings, determining the feasibility of group or individual examinations, establishing reliable criteria upon which to grade tests, assigning correct grade marks, and wording test questions so as to elicit short, direct answers in preference to multi-word answers.

Proper administration.—In administering tests the time of day must be considered, for the element of fatigue is important in influencing the quality of work produced. The nature of instructions preceding the test should be carefully analyzed for simplicity, clearness, directness, and conciseness. The emotional attitude of the participants must be considered, for each reacts with a different emotional response. Some are timid, some excited, some apathetic, some curious, and some are imbued with a competitive spirit. All must be assured before starting, however, and feel at ease in answering the questions. Their willingness to cooperate is an important factor in proving the value of the examination.

The question of time limit or speed is of less importance in intelligence tests than in mechanical or trade tests. That speed is not the primary index of efficiency has been borne out by the evidence that speed and intelligence do not correlate very highly. Time measurements become more significant and reliable in proportion as the task becomes more mechanical and less intellectual.

Objective ratings.—A second problem in regulating tests is that of securing objective ratings and eliminating the personal equation of the examiner. The revision of tests and test questions so that correct answers are definitely limited to a certain word or words, these being written, has made possible a response uninfluenced by the presence of the examiner. In the same way, by limiting the scope of correct or nearly correct answers—that is, confining the answer of any one question to a choice of some three or four words or groups of words—and assigning a definite score for each type of answer, the chance of a subjective rating is still further eliminated.

Group versus individual examinations.—Methods of individual examining and examining in small groups were devised with the adoption of the Binet tests and their subsequent revisions. During the war, however, when expediency required the administration of tests yielding the most valid measurements commensurate with

limited time and labor, the task of examining large groups was met and successfully carried through. The Alpha test was administered to as many as 200 men in a single group. The more difficult administration of the Beta test and the factor of illiteracy in those taking it made a smaller grouping necessary. Subsequently, group tests have become general and are now given in the various school systems and industrial centers of the United States.

From the standpoint of administration, group testing has proved successful. From the standpoint of results, however, success as far as the individual is concerned can not be so definitely determined. Group examinations yield only the average or general measurements of persons tested in that group. In addition, the influence of physical fitness, affective reactions, and environmental situations, already referred to, can not be given consideration in a group examination. They influence the outcome, however, and should be taken into account. Individual examinations are not only more satisfactory from the standpoint of accuracy and of showing the effect of personality traits, but of such real benefit to the individual concerned that they are far more to be desired, provided that the elements of time and labor can be discounted.

Establishing reliable criteria.—A fourth problem in devising tests is that of securing reliable criteria upon which to base the grades assigned. One can not roughly grade a person as limited in intelligence according to the scoring of a test and reconcile such a grading with a high professional ability in business life. The following method of procedure in establishing a criterion may elucidate this phase of securing reliable tests. Let it be supposed that two tests are under consideration and that it is desired to ascertain the relative value of each. To determine this value, both tests are given to a group of persons whose abilities are known. Then that test the results of which agree most accurately with the known abilities of the persons tested is the more valuable and the more reliable of the two. It agrees and correlates with the criterion, whereas the other gives a poor correlation and can not be relied upon.

This factor was given due consideration in constructing the Army tests. They were checked against every available criterion, such as ranks in the Army, professional success, ability to learn as evidenced by school standing, and other intelligence tests. If the correlations were high, then the test was established as valid and, other things being equal, as giving an accurate measurement of intelligence. One of the best criteria used in proving the validity of a test was that determining the relationship of education to mental rating, the correlation of which was high and showed a positive relationship between intelligence and the amount of schooling of the individual.

Assigning correct grade marks.—The problem of interpreting the results of mental measurements and assigning correct grade marks has resulted in the adoption of various methods of applying tests and of scoring them. According to Binet, the chronological age of the child was the measure of a test, and the results were evaluated in terms of "mental age." But his scale of measurement differs from the scale used in the Stanford revision, from that used in the Goddard revision, and so on. Thus, according to Brigham, "A person might have a mental age of 13 on the Stanford-Binet scale, of 11 on Goddard's translations of Binet's 1908 scale, or of 12 on Goddard's 1911 scale, and so forth for every scale in use. The term 'mental age' really means a score on a particular series of tests." Binet developed his age-average-gradation standards as follows: Tests containing five or six questions were organized, each test corresponding with the estimated intelligence of a definite chronological year. The questions were standardized "by presuming that if 75 per cent of children of a certain age pass the test it must be normal for that age." Thus, a child of 12 years who succeeded in passing no test higher than that for 8-year-olds was designated as having a "mental age" of 8. Later tests have adopted special methods of scoring and classifying their subjects according to grade. It may be well to explain briefly the manner of scoring used by the Army psychologists in securing ratings from Alpha and Beta tests. Examination Alpha contained eight separate tests, each test including a varied number of questions. Each test was given a "raw score" in accordance with the number of questions and the result expressed in the total score; i. e., the sum of the raw scores of the several tests. The following table will serve to explain the "raw score" method and also show the grade assigned to those scoring in the examination:

Test.	Raw score.	Grading.	Remarks.
1	12	A 135–212	
2	20	B 105–134	
3	16	C+75–104	
4	40	C 45–74	
5	24	C−25–44	
6	20	D 15–24	
7	40	D−0–14	
8	40		Recalled for further examination.

Examination Beta was scored in a manner similar to the above.

The point scale method of scoring was first made ready for practical application by Yerkes, Bridges, and Hardwick. Their method was to assign a certain number of points for each question or test and a certain number of points for each type of answer or performance. In the allotment of points, however, no cognizance was taken of the relative difficulty of the individual tests or questions, one reason for

this being that there was no way to determine definitely the varying degrees of difficulty. Since the point scale method was first used, various mental tests employing that method have been devised, in which the number of points allotted vary in accordance with the difficulty of the test or questions and with the type of performance. The question of scoring, although by no means perfectly or absolutely standardized, is, nevertheless, a fairly dependable element as far as mental testing is concerned.

Wording the questions.—The advantage of using concise, direct, and pointed questions that require answers of a similar quality is self-evident. It is not only a time-saving device, but, with a direct question, the possibility of answer is limited and a scoring of right or wrong more easily obtained. In the same manner this type of question confines the rating to a more objective basis than the long, drawn-out, multi-word answer which allows the examiner's personal reaction to show itself in the final score. In addition, the short-answer type of question pins the examinee down to specific answers. Short-answer questions are now used in practically all intelligence tests.

DEVELOPMENT OF TESTS AFTER THE WAR

With the conclusion of the war in 1918, psychologists turned their attention to developing the field of mental testing. The success of the Army tests brought requests for permission to use them from school officials, colleges, universities, and persons interested in educational psychology. New tests, based on those given in the Army, were devised and applied in testing groups of school children throughout the country.

Parallel to this development there opened the great field of research in industrial psychology and the organization of tests determining trade ability. These were not tests of intelligence in the strict sense of the term. They measured the particular training or aptitude of an individual in a certain kind of work, for the purpose of giving an idea of the rapidity with which he would develop the particular trade skill desired.

In addition to work in the educational and industrial fields, what might be called a third and more complex field was soon opened to investigation. This field confined itself more nearly to the sphere of the individual and his personal characteristics, and in it attempts have been made to measure what are known as temperamental traits, such as aggressiveness, alertness, speed of decision, concentration, etc. Research in this field is comparatively new; so new, in fact, that no tests have as yet been standardized as giving an accurate measurement of any temperamental quality.

It is interesting to observe the growth of these three fields and to realize the importance of each when it becomes a matter of selecting individuals for specific duties. It may be stated that the requisites for any type of work, whether it be in the professional, official, mechanical, or ordinary labor category, are (1) either intelligence or physical soundness, (2) specific ability, and (3) temperamental qualities making the work a source of pleasure and interest. The necessity for intelligence or physical soundness depends entirely on the type of work, although in some instances both may be required.

TRADE TESTS

In industry, as in the Army, it is necessary to utilize all available skilled personnel in order to facilitate production and secure maximum output, speed, and efficiency. Again, as in the Army, it is necessary to place the man who has the right qualifications in that position where he is most needed and where his work can be most effectively utilized. It has been agreed that to be of real value such a process of placement must be preceded by an analysis that will determine the qualifications essential for the position in question. These include physical and mental qualifications, specific abilities, temperamental qualities, and the economic aspects of the job. When that analysis has been made, then a test of the individual who is to fill the position becomes less complicated.

Trade tests measure the skill or technique of an individual in performing the specific operations of a particular line of trade. They measure present and actual vocational skill and information, not potential skill or ability. They likewise attempt to measure the general knowledge of the subject in the trade concerned. For instance, a test of stenography by which the competitor takes dictation and transcribes it, is a trade test. It measures his present skill and information in that line of endeavor. Four different types of trade test have been developed, as follows: (1) The oral trade test, (2) the picture trade test, (3) the performance trade test, and (4) the written trade test, each used in differentiating the four types of trade skill, viz, the novice type, the apprentice, the journeyman, and the skilled worker or expert. There are groups of questions for each trade level.

Scope of trade tests.—Although trade tests and work in personnel research and job analysis have progressed rapidly since the World War, it is still a matter of general practice to select employees without any definite knowledge as to their skill in or adaptation to the work required. The applicant's fitness for the job in hand is usually based upon the personal judgment of the foreman or employment manager, a judgment derived often from mere observation. General intelligence is not a necessary element of trade skill, but such things as con-

centration, attention, judgment, accuracy, quickness, thoroughness, etc., are essential in proportion to the specific trade under consideration. Temperamental qualifications, though not measured by trade tests, are very important in industry. An employee possessing the specific abilities for a job may be very competent, but if he is not a willing worker his value to the industry may be almost negative. To-day, however, employers are more than ever looking for applicants who show promise of growth, for they are beginning to realize that it is more important to employ people who have the right kind of mind and personality than it is to require an applicant to show the specific information required for the job.

GENERAL TESTS

Tests for clerical occupations.—Although tests for clerical occupations might be classified among trade tests, they really demand more mental qualifications than do ordinary tests of trade skill. A satisfactory clerk requires not only good intelligence but educational attainments, linguistic ability, general information, shorthand and typewriting. In testing the ability of clerks, the application of a number of tests is more effective in eliminating failures and picking successes than any single test could be. This method has been tried out for the purpose of selecting stenographers and comptometer operators.

Mental alertness tests.—Tests have been devised to measure mental alertness, not mental alertness as applied to a specific type of work, but mental alertness in general. They measure quickness, accuracy of thinking, and ability to learn. The types of test used in this measurement vary, but the following group may be given as a fair example of the assortment used: (1) Arithmetical reasoning test; (2) opposites test; (3) analogous test, in which the relationship between words is questioned; (4) cube analysis test; (5) disarranged word test; and (6) coin test, in which the problem is that of combining coins. This type of test is of especial value in the industrial field.

Aptitude tests.—Aptitude tests are especially interesting and at present fairly well standardized. They attempt to measure with as great a degree of accuracy as possible a person's innate propensity for a particular line of work, whether it be professional, mechanical, or social. A mechanical aptitude test devised by Stenquist showed that little correlation existed between general intelligence and mechanical ability. The test was not designed to measure aptitude for any single trade, but a general mechanical propensity that would serve either in shop or scientific work. The test pieces, all mechanical contrivances, were given to the subject to assemble. They were all very simple; but to those having no mechanical aptitude, they seemed

difficult and impossible to put together. Work in the field of developing aptitude tests is closely related to the subject of vocational guidance, as are all tests of mental measurement.

Social relations and interest tests.—Interesting tests have been developed in an attempt to determine the social relations of the individual. According to Thorndike, there are three kinds of intelligence—conceptual, mechanical, and social. The latter type is exemplified in the salesman. In the social relations test, questions were asked and a varied number of answers written, the subject checking that answer which expressed his desire and inclination. The test was divided into questions of three types—the first showing the subject's desires for acceptable social things, the second his desires in sports, and the third his desires for such questionable items as dice, cards, roulette, liquor, etc. By this means the interests of the applicant could be determined, as well as his diversions and activities outside of working hours.

MEASUREMENT OF TEMPERAMENTAL TRAITS.

Downey-Will temperament test.—Attempts to measure temperamental traits are the newest development in the field of mental testing. None of these tests have been standardized, however, and none can be rated as giving a definite measurement of the trait under consideration. Many of these take the form of single trait measurements, such as aggressiveness, social relations, self-assurance, speed of decision, and creative imagination. The Downey-Will temperament test represents one of the first systematic attempts made to secure an appraisal of the temperamental qualities. It consisted of a series of 12 tests, each measuring a personal characteristic of the individual. From it a final judgment as to the "personality" was obtained. The 12 tests classified roughly three separate types, viz, (1) the explosive type, (2) the willful, aggressive type, and (3) the slow, accurate, tenacious type. It was considered that a high total score indicated a strong personality. The validity of the Downey-Will temperament test is questionable, however, partly because the intercorrelation between the tests is low and partly because it has not been definitely determined whether or not these tests do really measure the psychological traits they are intended to measure.

Aggressiveness test.—A measurement of aggressiveness in the individual as indicative of his chances of success has been developed as follows: (1) Eye-movement test, in which it was found that the most aggressive do not shift eyes when required to look at the examiner and answer his questions; (2) fear-distraction test, in which aggressive and nonaggressive types rated about the same; (3) distraction by staring test, in which the aggressive seemed more affected than the nonaggressive; (4) distraction by electric shock test, in

which the nonaggressive seemed to be most affected; and (5) a word association test, in which six words were presented to the subject, who responds with the first word he associated with the word given. It was found here that the aggressive subjects were more positive and definite in their responses. A high degree of intelligence is by no means contingent upon the possession of aggressiveness, however, for the two qualities do not correlate to a very great extent.

Creative imagination.—Attempts have been made to design tests measuring more complex processes of the temperamental make-up, such as creative imagination, æsthetic judgment, and moral concepts. Tests of creative imagination are of great value in vocational guidance, for they indicate in a concrete way the creative capacity of the individual measured. The test is very simple and is administered to school children. It consists of five sets of four dots arranged in square formation. Instructions are given to place two additional dots anywhere in each set and then connect all of the dots. The subject thus places them, endeavoring to get original designs. In this way equal chance of expression is given to each type of imagination and creative ability. As has been previously stated, however, the field of temperamental measurements is still new and unorganized and its tests are still too rudimentary and inaccurate to be used as reliable indications of any character trait.

GENERAL CONSIDERATIONS.

Quantity versus quality.—Since the successful application of the first intelligence measurement, test after test has been designed, developed, tried out, correlated, and standardized whenever possible. The energy of those interested in the movement has been directed toward increasing the number and kinds of measurements. Recently, however, this great increase in quantity has been brought to the attention of workers in the field, and stress is now being laid upon the matter of making those tests in existence more accurate and reliable. Psychological investigations have demonstrated that it is possible to measure general intelligence, ability, or mental alertness at least within approximate limits, and that the special aptitudes and qualities required for various types of occupations may also be measured with some degree of approximation. This being established, really effective results in administering mental tests may be secured only by being sure that the test is a real measurement and that it is reliable.

Correlation between tests.—The difficulty of securing accurate measures is typified in the comparison of tests claiming to measure the same thing. Little attempt has been made to compare tests and to ascertain which, if any, are entirely reliable and furnish concrete

measurements. In one instance, 13 tests measuring general intelligence were tried out on a group of children to see how well they correlated. It was found that of the 13, only 5 were reliable, 4 were unreliable, and the remaining 4 were undertermined as to their reliability.

The two types of correlation in tests must not be confused. The first type, mentioned earlier in this article, was concerned with securing reliable criteria upon which to base the test and seeing that the results of the test correlated with the criteria. The second type, as just discussed, is concerned with correlating two or more tests presumably measuring the same element.

Value of intelligence tests.—After all, no single test alone can accurately measure the general level of intelligence, because the latter is composed of such a varying number of elements, each existing with greater or lesser intensity in different individuals. The influence of heredity, training, and environment modify each of these elements to such a degree that no two persons are the same or can demonstrate the same reaction to all stimuli. Racial differences are especially noticeable, and tests standardized on one group can not possibly be true measurements if administered to other groups.

Tests measuring mental, physical, and even moral qualities are now in existence; but results as brought out by such tests are in themselves still far from being definite. When research has gone as far as possible along this tangent, then a comprehensive study of the factors which influence mental development as it is found to exist will be a cogent basis from which to proceed to specific recommendations for human welfare.

Tests in vocational guidance.—Interesting work has been done in finding the relation between the intelligence of pupils and their vocational choices. Here is where mental tests should be of extreme value. In many instances students desire to enter occupations for which they are neither temperamentally nor mentally fitted. Students with a high grade mentality are often known to choose occupations requiring but little intelligence or ability. Vocational advisers in school should endeavor to save such pupils from entering occupations below the level of their ability. Methods for the study of vocational interests have been devised and occupational choices assigned to several broad groups, such as artistic, literary, mechanical, social, scientific, and solitary. As a general rule it has been found that a student's interest in his work and his ability in it correlate highly.

Originally the field of mental testing belonged to the psychologist alone, but its complexity has brought into service the knowledge not only of psychologists but psychiatrists, social investigators, and

the general medical practitioner as well. Individual responses to tests are so varied, so often tempered by slight or well-defined physical or mental abnormalities, that the diagnosis of one or the other is necessary in measuring the real mental equipment of any one individual. This shift of responsibility to the combined knowledge of psychologist, psychiatrist, and physician has been not only a step ahead but a broadening and enlarging of the field, a step which, along with the general advancement of mental testing, has again served to stress the individual as the all important unit of examination.

MENTAL TESTING ABROAD.

It might be well to mention the prevalence of the mental testing movement in foreign countries. Interest in the movement is neither as keen nor as extensive in foreign countries as in the United States, although a considerable amount of attention is given to vocational guidance throughout the Continent. France, since the war, has developed a great deal of interest in vocational guidance, special consideration being given her ex-soldiers. That country has also begun to adopt American methods of industrial management. England has developed a keener interest in job analysis and is also attempting to ameliorate working conditions through vocational guidance. Germany has a national association of vocational guidance. In Berlin, occupational tests are given in factories and intelligence tests are given to school children. These are poorly administered, however. In China, the first attempt to introduce scientific intelligence tests was made in 1920. Two Chinese psychologists who had been educated in America devised five tests, although the fact that 90 per cent of the Chinese people are illiterate makes the test applicable to but very few. Efforts have been directed, however, toward devising a nonverbal intelligence test for use in that country.

RECAPITULATION.

In summing up the work that has been accomplished in the field of mental testing, mention will be made of only the most salient facts. After the successful application of the Binet-Simon test of general intelligence, interest in this branch of psychology increased. The greatest impetus to the movement came with the advent of war, during which the Army Alpha and Beta tests were organized and successfully applied. Up to the close of the war, work had been done in testing general intelligence only, but the development of the Army tests had opened so many new possibilities that psychologists enthusiastically took up the task of broadening the field and extending its limits. Trade tests and tests rating specific abilities were

organized, the number and kinds of general intelligence tests were increased, and, finally, attempts were made to measure temperamental qualities. This process of development laid stress upon the quantity of tests, however, at the expense of their quality. As a result, the real problems of securing accurate measurements were not realized until analyses were made of the quality and reliability of tests already in existence. Then the complexity of mental testing became apparent and the significance of such factors as emotional reactions, correlations, methods of administration, establishment of criteria, and correct analysis were brought to light. Tests as they stand to-day are by no means perfect as far as the consideration of these factors is concerned. More stress is constantly being laid upon mental testing as an individual problem, and it is by individual testing that the best results are secured, the best not only for the individual but for society.

Too much emphasis can not be placed upon the value of tests in vocational guidance. It is during the school period, when the youth of the country is planning its future, that correct guidance along suitable channels is absolutely essential. It means not only satisfaction and pleasure to the individual, but the utilization of his powers in the field where they are most needed and most valuable. It means satisfaction to the individual, to industry, to society, to the eugenist, to the race. Thus the effects of mental testing are far-reaching and significant, and embrace not only the field of psychology but the fields of psychiatry and of medicine as well. The mental testing movement is still little more than in its infancy. Many intelligence tests have been standardized as giving accurate measurements of general ability. Accurate measurements may also be secured from certain tests of specific abilities and aptitudes. Tests of temperamental qualities are still more or less unreliable. Research agencies throughout the country are industriously carrying on the work, placing more emphasis upon the quality of their tests and making them more reliable. The problem is by no means simple. Tests are far more complicated when gone into qualitatively than one is likely to realize, for it means delving deeper into hidden traits and workings of the human mind that are not yet fully understood or even realized. But when mental tests are standardized and give measurements that may be relied upon, then, if applied to those boys and girls who are in school or just embarking in the field of industry, foundation will be laid for the most fruitful and far-reaching results.

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REPORT ON SIXTY-ONE CASES OF HUMAN ANTHRAX IN NEW YORK CITY, 1919-1923.

Dr. William Jacobsohn, industrial medical inspector of the New York City department of health, has made a clinical and epidemiological study of 61 cases of human anthrax occurring in New York City during the five years 1919–1923. He personally visited each case and obtained first-hand the data which he has summarized in a report in the Monthly Bulletin of the Department of Health of the City of New York for July, 1924, from which report the following information is taken.

Seasonal incidence.—The occurrence of anthrax by months was as follows: January, 6 cases; February, 5; March, 7; April, 5; May, 2; June, 3; July, 4; August, 5; September, 5; October, 2; November, 7; December, 10. Forty cases occurred during the months from November to April as against 21 from May to October, inclusive.

Occupation of patients.—A list of occupations of the patients shows that about one-third of the cases occurred among brush makers, warehousemen, truckmen, and longshoremen.

Mode and source of infection.—The table below was given in the report, showing the number of cases due to various sources of infection. In more than one-half of the cases the infection came from shaving brushes.

Sources of infection of 61 cases of anthrax in New York City, 1919-1923.

Source of infection.	Year.					Total 1919–1923.
	1919	1920	1921	1922	1923	
Shaving brushes	9	10	8	5	0	32
Other brushes	2	3	0	1	2	8
Hair cushion	0	1	0	0	0	1
Hair cloth	0	1	0	0	0	1
Raw hides and skins (animal not known)	3	6	0	0	0	9
Raw goatskins	0	0	0	0	3	3
Raw cowhides	0	1	0	0	0	1
Raw fleshings	0	0	0	0	1	1
Leather uppers	0	0	1	0	0	1
Leather gloves	0	0	0	1	0	1
Unknown	0	2	0	1	0	3
Total	14	24	9	8	6	61

The report states:

"This table shows two main sources of infection: First, animal hair or articles made from animal hair; second, animal hides, skins, or articles made from animal hides and skins. Thus, 42 persons were infected by materials from the first source, and 16 persons from materials from the second source.

"There were 32 persons infected by shaving brushes. Twenty-four persons infected themselves while shaving themselves at their own homes; 3 persons were infected at the barber shop where they were shaved by their barbers; 4 were infected while making shaving

brushes in the factories in which they were employed; and 1 was infected while selling shaving brushes which he handled and demonstrated to prospective buyers.

"There were eight persons that were infected by brushes other than shaving brushes, namely, shoe, hair, and dust brushes. Six persons were infected while making these brushes at the factories in which they were employed. One person was infected by a table brush while cleaning the table in an institution. One person contracted anthrax while brushing his hair on his head with a hair brush. One person was infected by hair cloth used while working on ladies' hats in a millinery shop. One person was infected from a torn hair cushion in the office in which she was employed.

"From exposure to the second source (animal hides, skins, or articles made from animal hides and skins), 6 persons handling hides and skins while employed in warehouses, 2 persons handling hides and skins while employed on trucks, 2 persons engaged in fleshing goatskins at fur dressing establishments, and 1 person unloading fleshings from a steamer contracted anthrax. In addition, one person cutting upper leather in a shoe factory, and one person wearing a new glove became infected. From unknown sources, three persons became infected."

Treatment.—The following table shows the results of the various treatments:

Treatment.	Number of cases treated.	Number of recoveries.	Number of deaths.
Antianthrax serum	36	29	7
Antianthrax serum and incision	6	5	1
Antianthrax serum and excision	4	3	1
Antianthrax serum and chemical cauterization	2	0	2
Chemical cauterization and incision	2	1	1
Antianthrax serum, excision, and chemical application	1	1	0
Chemical dressings	2	2	0
Chemical dressings and yeast	1	1	0
Mixed vaccines	1	0	1
No treatment recorded	6	0	6
All treatments	61	42	19

"From analysis of the above table, it will be seen that the administration of antianthrax serum alone without the aid of incision, excision, or cauterization gave in the greater number of cases the best results. Moreover, in the fatal cases when antianthrax serum alone was administered, the following contributing factors offset the benefit of antianthrax serum: In one case, extreme age of patient; in three cases, delay of patient before seeking medical advice; in two cases, intense virulent type of disease and delay in administering serum.

"The average amount of antianthrax serum administered and the average duration of the serum treatment in recovered cases were, respectively, 480 c.c. of antianthrax serum during a period of 4.8 days, or 100 c.c. a day. The serum was administered intravenously, intramuscularly, subcutaneously, and around the lesion. As a rule, the amount of serum administered to the patient was 40-50 c.c. every four hours intravenously, and 10 c.c. once daily by local infiltration. Larger initial doses (150 c.c.) have been lately given. The reader is referred to the individual cases for variations in doses. When ad-

ministering serum each case was treated not as a case, but as an individual person, whose special requirement as to the amount of the initial and subsequent doses of serum in his case was taken into consideration. Initial tests for anaphylaxis and tests for blood sterility were made. Desensitizing was practiced. Following serum injection, chills in eight cases and serum rashes in four cases occurred. Intelligent management of these as well as adjuvant treatment to meet various accompanying symptoms of the disease were undertaken. The successful result of serum treatment was manifest by the blood stream becoming sterile, by the diminishment of the swelling and of the edema, by the drying of the lesion, by the decrease of the induration, and by the marked improvement of the general condition. In recovered cases, the duration of acute illness lasted from 7 days to 30 days, the average being 14 days.

"United States Government-made Eichhorn serum was at first used, but as the United States ceased manufacturing the serum, it was necessary to purchase the serum in open market."

Fatality.—The fatality rate for the 61 cases was 31 per cent. Fatal cases usually terminated before the ninth day after onset. The principal causes contributing to fatality were (1) virulency of the disease, (2) extreme age or poor physique of patient, (3) delay of the patient in seeking medical attention, and (4) erroneous or late diagnosis and late treatment by physician. The number of fatal cases arranged according to time of death after onset of the disease is given in the table below:

	Day of death.
8 fatal cases	Fourth.
3 fatal cases	Third.
3 fatal cases	Fifth.
2 fatal cases	Sixth.
1 fatal case	Second.
1 fatal case	Seventh.
1 fatal case	Eighth.

Incubation and onset.—The number of days elapsing between exposure and the onset of the disease as determined by local swelling following the appearance of the papule, was given as follows: In 31 cases, one day; in 6 cases, two days; in 4 cases, three days; in 5 cases, four days; in 5 cases, five days; in 1 case, six days; in 1 case, seven days; in 1 case, eight days; and in 7 cases, not determined.

Bacteriological findings.—Smears and cultures made from discharges from the local lesions revealed the anthrax bacillus present in 54 cases, absent in 4 cases, and not determined in 3 cases.

Portal of infection and site of inoculation.—The skin was the portal of infection in 60 cases and the respiratory tract in 1 case. The sites of inoculation of the 60 cases were as follows: Face, 31 cases; neck, 20; face and neck, 4; forearm, 2; hand, 2; head, 1 case.

Lesion at site of inoculation.—In 47 cases the lesion was stated to be typical, consisting of a central black eschar surrounded by a vesicular

ring around which was a red areola, and around this areola the tissues were edematous. The diameter of the eschar varied in size from one-eighth inch to 3 inches. In 60 per cent of the cases pain in the lesion was not present.

Symptoms.—Extension of swelling and edema depended upon location of original lesion. In hand lesions, edema extended to elbow. Face lesions caused edema of eyelids, swelling of throat and neck, which often extended over clavicle and sternum. Neck lesions caused extension of edema from mastoid region over to middle thoracic region.

Temperature, as a rule, did not run very high, gradually subsiding in cases that recovered and becoming normal by the tenth day. The highest temperatures recorded were 105° F. in five cases; 104° in four cases; 103° in six cases, and 102° and below in the remainder of the cases.

The relative frequency of the occurrence of different symptoms and objective signs as noted in the 61 cases was given as follows:

Symptom or sign:	Frequency.	Symptom or sign:	Frequency.
Fever	61	Eruption (general)	3
Local cutaneous lesion	60	Hoarseness	3
Chills	17	Choking	2
Weakness	13	Insomnia	2
Aches (general)	10	Coma	2
Cyanosis	10	Delirium	2
Chills following serum treatment	8	Malaise	2
Dyspnoea	8	Imperceptible pulse	2
Cough	8	Moist, sonorous, and sibilant rales	2
Dysphagia	7	Sluggish pupils	1
Headache	7	Nystagmus	1
Nausea and vomiting	5	Vertigo	1
Edema of throat and larynx	4	Profuse perspiration	1
Faint and irregular heart sounds	4	Cold, clammy extremities	1
Anorexia	4	Emphysematous respiration	1
Serum rash	4	Stridor	1

Measures for Suppression and Control.

As a result of the increase in the number of cases of anthrax in New York City in 1920 (from 14 cases in 1919 to 24 in 1920), the authorities of the department of health were stimulated to adopt more stringent measures for suppression and control of the disease. These measures consisted in (1) the enactment of regulations regarding sterilization of all animal hair to be used in brushes or hair cloth, and requiring manufactured hair products to be identified by trade-marks or manufacturer's name; (2) in tracing the source of infection and seizing and

destroying or disinfecting infected material; and (3) public health, education, by which means the worker, the employer, and the public generally were informed concerning anthrax. Following the adoption of these measures, the number of cases of anthrax declined. In 1921 only 9 cases were reported; in 1922, 8 cases; in 1923, 6 cases; and only 1 case was reported for the first six months of 1924.

Detailed clinical histories of the cases included in this report were published in the Monthly Bulletin of the Department of Health, New York City, Volume X, No. 11 (1920), and Volume XIV, No. 7 (1924), and in the Weekly Bulletin for May 17, 1924.

DEATH RATES IN A GROUP OF INSURED PERSONS.

COMPARISON OF PRINCIPAL CAUSES OF DEATH, JUNE AND JULY, 1924, AND RATES FOR WHITE AND COLORED FOR FIRST SIX MONTHS OF 1922, 1923, AND 1924.

The accompanying tables are taken from the Statistical Bulletin for August, 1924, published by the Metropolitan Life Insurance Co. They present the mortality experience of the industrial insurance department of the company for June and July, 1924, as compared with July and year 1923, and compare the death rates for white and colored policyholders for the first six months of the years 1922, 1923, and 1924. The rates are based on a strength of approximately 15,000,000 insured persons.

The gross death rate for this more or less selected group for July, 1924, 8.4 per 1,000 persons, was the same as that for July, 1923, and is the lowest recorded rate for this group for the month of July. Practically all of the principal causes of death show a decline from the June rates—the important exceptions from the standpoint of public health being whooping cough, diarrheal diseases, and a slight rise in the typhoid fever death rate. Homicides, automobile accidents, and other accidents also show an increase in July over the rates for June.

The Bulletin states:

"The most notable favorable items in the July mortality report are the continued low rates for the epidemic diseases of childhood, for tuberculosis, and the 'degenerative diseases.' The typhoid mortality, despite its slight seasonal increase over June, shows a decline of more than one-third as compared with July, 1923."

Death rates (annual basis) for principal causes per 100,000 lives exposed, June and July, 1924, and July and year, 1923.

[Industrial Department, Metropolitan Life Insurance Co.]

Cause of death.	Death rate per 100,000 lives exposed.[1]			
	July, 1924.	June, 1924.	July, 1923.	Year 1923.[2]
Total, all causes	836.3	903.6	837.2	923.9
Typhoid fever	4.2	4.0	6.6	5.1
Measles	3.6	7.8	9.7	9.4
Scarlet fever	3.4	5.0	2.3	4.4
Whooping cough	8.3	7.2	10.0	7.4
Diphtheria	7.6	9.1	7.9	15.5
Influenza	5.0	11.3	4.5	30.2
Tuberculosis (all forms)	99.8	112.0	107.8	109.6
Tuberculosis of respiratory system	87.8	100.1	95.8	99.2
Cancer	70.6	73.9	68.1	71.5
Diabetes mellitus	12.2	13.7	11.5	15.9
Cerebral hemorrhage	52.8	56.7	50.3	61.0
Organic diseases of heart	109.0	128.0	111.8	126.7
Pneumonia (all forms)	46.4	81.8	38.9	83.5
Other respiratory diseases	11.5	13.7	10.7	13.9
Diarrhea and enteritis	34.9	23.6	38.8	28.1
Bright's disease (chronic nephritis)	59.9	63.9	58.9	68.5
Puerperal state	15.0	14.8	17.4	17.6
Suicides	5.8	7.6	7.0	7.3
Homicides	9.1	5.5	6.8	7.2
Other external causes (excluding suicides and homicides)	82.4	61.4	77.5	62.7
Traumatism by automobile	17.9	16.2	15.0	15.2
All other causes	194.7	202.7	190.7	178.6

[1] All figures include infants insured under one year of age.
[2] Based on provisional estimate of lives exposed to risk in 1923.

MORTALITY RECORD FOR THE FIRST SIX MONTHS OF 1924.

Health conditions among the more than 15,000,000 persons here considered, as indicated by the mortality records, were especially favorable during the first half of 1924. Among the particularly gratifying items are the falling typhoid-fever death rate, the low diphtheria mortality, and practically the same death rates for scarlet fever and whooping cough as obtained last year in spite of the greater number of infant lives insured in 1924—indicating an actual improvement in the rates for these diseases. Mortality from lobar pneumonia decreased markedly among white policyholders and slightly among colored, whereas broncho-pneumonia caused more deaths during the first six months of 1924 than during the corresponding period last year. This, however, is also attributed to the greater number of infant lives insured in 1924, as is also the increased rate for diarrheal diseases.

Among the white women a further decline is shown in the mortality from diseases incidental to pregnancy and childbirth, and, more particularly, puerperal septicemia. This improvement was not shown, however, for colored women.

Attention is called to the decline in the death rate from diabetes, which apparently began coincidentally with the increasing use of insulin in 1923 and which followed an uninterrupted rise that occurred

during the four years immediately preceding. The rate for the first six months of 1924 shows a still further decline, amounting to a decrease of 21.6 per cent among white policyholders and more than 10 per cent among colored.

Little encouragement is shown by the cancer mortality figure. While a slight decline was recorded for white persons, an increase was shown for the colored—the combined rate for both being slightly lower than that for the corresponding period last year.

The rate for automobile fatalities has continued to increase—only slightly among white persons, but by about 10 per cent among the colored. As compared with the first six months of 1922, however, the white rate increased about 14 per cent, while the colored rate increased 92 per cent.

Death rates (annual basis) per 100,000 persons exposed first six months of 1922, 1923,[1] and 1924,[1] for principal causes of death, compared for white and colored policyholders.

[Industrial department, Metropolitan Life Insurance Co.]

Cause of death.	Death rates per 100,000 persons exposed.					
	White.			Colored.		
	Jan.–June, 1924.	Jan.–June, 1923.	Jan.–June, 1922.	Jan.–June, 1924.	Jan.–June, 1923.	Jan.–June, 1922.
All causes of death	879.7	954.5	921.9	1,556.2	1,582.5	1,482.6
Typhoid fever	2.5	3.2	3.2	5.4	6.0	6.3
Measles	13.0	14.4	6.4	8.2	13.0	2.0
Scarlet fever	6.6	6.5	7.0	1.0	1.3	.6
Whooping cough	7.4	7.1	2.7	13.1	9.9	3.5
Diphtheria and croup	16.2	18.1	19.8	4.8	6.4	8.0
Influenza	19.0	48.2	32.6	52.5	100.3	67.7
Meningococcus meningitis	.8	.7	.7	1.1	.7	.6
Tuberculosis (all forms)	93.9	104.3	108.3	246.6	256.2	258.9
Tuberculosis of respiratory system	83.5	95.4	98.1	223.2	235.4	237.6
Tuberculosis of the meninges, etc.	5.7	4.5	4.7	7.2	6.0	5.4
Other forms of tuberculosis	4.6	4.4	5.6	16.2	14.8	15.9
Cancer	68.7	72.3	74.4	73.4	69.7	69.9
Diabetes	15.6	19.9	[2]	15.4	17.2	[2]
Cerebral hemorrhage; apoplexy	57.5	63.3	65.7	103.0	102.5	100.7
Organic diseases of the heart	120.5	136.7	138.3	214.4	218.2	206.0
Total respiratory diseases	119.4	120.9	114.0	243.1	223.2	182.0
Bronchitis	6.1	7.2	7.1	11.3	11.2	12.3
Bronchopneumonia	47.9	39.3	35.7	76.8	56.4	44.2
Pneumonia (lobar and undefined)	56.5	65.4	62.6	141.9	142.9	112.9
Other diseases of respiratory system	8.9	9.1	8.5	13.2	12.7	12.7
Diarrhea and enteritis	20.3	10.9	7.8	18.7	12.0	11.7
Under 2 years	17.1	7.4	3.6	12.7	5.3	3.0
2 years and over	3.3	3.5	4.2	6.0	6.6	8.7
Acute nephritis	4.8	5.4	5.6	16.8	15.3	18.1
Chronic nephritis	63.0	71.6	70.5	115.4	120.7	124.8
Total puerperal state	17.1	19.0	20.6	26.8	24.4	27.2
Puerperal septicemia	6.5	7.3	7.7	10.0	9.4	11.0
Puerperal albuminuria and convulsions	4.5	4.2	5.1	7.2	5.6	6.6
Other diseases of puerperal state	6.1	7.5	7.9	9.7	9.5	9.5
Total external causes	64.7	67.7	63.6	100.8	101.2	88.9
Suicides	7.3	8.4	8.3	4.8	5.0	5.0
Homicides	2.6	3.2	3.5	31.5	30.0	24.6
Accidental and unspecified violence	54.8	56.1	51.7	64.5	66.3	59.3
Accidental drowning	4.8	4.8	5.4	4.4	2.7	6.9
Automobile accidents	12.6	12.2	11.1	11.7	10.7	6.1
All other and ill-defined causes of death	168.6	164.3	180.4	295.9	284.1	305.6

[1] Death rates for 1923 and 1924 include infants insured under 1 year of age.
[2] Not available.

DEATHS DURING WEEK ENDED SEPTEMBER 20, 1924.

Summary of information received by telegraph from industrial insurance companies for week ended September 20, 1924, and corresponding week of 1923. (From the Weekly Health Index September 23, 1924, issued by the Bureau of the Census, Department of Commerce.)

	Week ended September 20, 1924.	Corresponding week, 1923.
Policies in force	56, 960, 716	53, 443, 715
Number of death claims	9, 434	9, 055
Death claims per 1,000 policies in force, annual rate	8. 6	8. 8

Deaths from all causes in certain large cities of the United States during the week ended September 20, 1924, infant mortality, annual death rate, and comparison with corresponding week of 1923. (From the Weekly Health Index, September 23, 1924, issued by the Bureau of the Census, Department of Commerce.)

City.	Week ended Sept. 20, 1924.		Annual death rate per 1,000 corresponding week, 1923.	Deaths under 1 year.		Infant mortality rate, week ended Sept. 20, 1924.[2]
	Total deaths.	Death rate.[1]		Week ended Sept. 20, 1924.	Corresponding week, 1923.	
Total (63 cities)	5,315	10. 6	[3] 11. 2	729	[3] 807	
Akron	30			5	11	53
Albany [4]	38	16. 7	10. 2	7	2	159
Atlanta	69	15. 8	15. 7	7	11	
Baltimore [4]	187	12. 4	13. 1	35	28	104
Birmingham	46	11. 9	17. 6	9	12	
Boston	174	11. 7	11. 8	28	18	78
Bridgeport	23			3	4	48
Buffalo	137	13. 1	11. 3	23	15	97
Cambridge	23	10. 7	8. 4	6	4	104
Camden	20	8. 3	9. 7	2	3	33
Canton	11	5. 6	10. 0	2	5	44
Chicago [4]	543	9. 6	11. 4	80	112	75
Cincinnati	84	10. 7	14. 4	7	11	44
Cleveland	152	8. 7	9. 7	22	26	56
Columbus	67	13. 1	14. 8	8	4	76
Dallas	39	10. 8	9. 2	10	8	
Dayton	20	6. 2	9. 5	2	5	33
Denver	72			13	12	
Des Moines	29	10. 4	12. 6	1	2	
Detroit	213			44	47	82
Duluth	26	12. 5	10. 8	2	3	43
Erie	29			2	2	41
Fall River [4]	30	12. 9	12. 1	7	4	99
Flint	17			6	4	104
Fort Worth	18	6. 3	6. 9	3	2	
Grand Rapids	24	8. 4	9. 6	2	3	31
Houston	48			8	4	
Indianapolis	97	14. 4	15. 4	16	16	118
Jacksonville, Fla	30	15. 3	21. 9	3	9	
Jersey City	69	11. 5	6. 7	10	5	71
Kansas City, Kans	29	12. 8	8. 6	5	3	96
Los Angeles	184			24	23	75
Louisville	67	13. 5	14. 6	11	11	103
Lowell	38	17. 1	13. 1	13	7	232
Lynn	19	9. 6	5. 6	2	2	51
Memphis	53	16. 0	18. 4	11	5	
Milwaukee	81	8. 6	9. 3	12	10	57
Minneapolis	75	9. 4	10. 6	7	8	38
Nashville [4]	33	13. 9	20. 4	7	6	
New Bedford	16	6. 3	11. 2	0	6	0
New Haven	32	9. 5	13. 6	4	10	53
New Orleans	112	14. 3	16. 5	12	9	
New York	1,094	9. 5	9. 6	136	163	55
Bronx Borough	115	6. 9	7. 0	6	9	21
Brooklyn Borough	379	9. 0	8. 1	57	52	61
Manhattan Borough	479	11. 0	12. 1	62	82	63
Queens Borough	86	8. 1	7. 7	10	13	50
Richmond Borough	35	14. 0	16. 8	1	7	18

[1] Annual rate per 1,000 population.
[2] Deaths under 1 year per 1,000 births—an annual rate based on deaths under 1 year for the week and estimated births for 1923. Cities left blank are not in the registration area for births.
[3] Data for 61 cities.
[4] Deaths for week ended Friday, Sept. 19, 1924.

Deaths from all causes in certain large cities of the United States during the week ended September 20, 1924, infant mortality, annual death rate, and comparison with corresponding week of 1923. (*From the Weekly Health Index, September 23, 1924, issued by the Bureau of the Census, Department of Commerce.*)—Con.

City.	Week ended Sept. 20, 1924.		Annual death rate per 1,000 corresponding week, 1923.	Deaths under 1 year.		Infant mortality rate, week ended Sept. 20, 1924.
	Total deaths.	Death rate.		Week ended Sept. 20, 1924.	Corresponding week, 1923.	
Newark, N J	87	10.2	10.0	15	13	70
Norfolk	33	10.5	9.2	4	7	72
Oakland	49	10.3	14.3	6	5	75
Oklahoma City	23	11.5		4		
Omaha	62	15.5	8.4	5	3	54
Paterson	37	13.7	13.4	4	5	68
Philadelphia	377	10.1	10.1	50	65	64
Pittsburgh	149	12.4	12.4	20	21	68
Portland, Oreg	64	12.0	10.3	6	4	62
Providence	59	12.6	7.5	9	6	73
Richmond	39	11.1	13.5	5	10	61
Rochester	60	9.6		9	22	71
St. Louis	195	12.5	13.6	15		
St. Paul	57	12.2	12.1	9	8	78
Salt Lake City [1]	31	12.6	10.3	3	4	60
San Antonio	36	9.8	13.5	7	9	
Schenectady	10	5.2	9.0	1	4	30
Seattle	52			2	2	20
Somerville	7	3.6	5.3	1	2	27
Spokane	24			1	2	22
Springfield, Mass	22	7.7	10.8	5	7	84
Syracuse	31	8.6	9.3	2	5	25
Tacoma	17	8.6	9.2	0	1	0
Toledo	54	10.2	12.8	6	14	56
Trenton	29	11.7	8.6	5	5	83
Washington, D. C	99	10.6	12.4	9	18	52
Waterbury	17			3	2	70
Wilmington, Del	28	12.2	13.7	3	1	67
Worcester	33	8.8	10.6	8	5	96
Yonkers	24	11.4	6.3	2	2	44
Youngstown	21	7.1	18.4	4	13	55

[1] Deaths for week ended Friday, Sept. 19, 1924.

PREVALENCE OF DISEASE.

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring.

UNITED STATES.

CURRENT WEEKLY STATE REPORTS.

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers.

Reports for Week Ended September 27, 1924.

ALABAMA.

	Cases.
Cerebrospinal meningitis	1
Chicken pox	1
Diphtheria	37
Dysentery	11
Influenza	12
Malaria	140
Measles	14
Mumps	7
Ophthalmia neonatorum	1
Pellagra	10
Pneumonia	11
Scarlet fever	21
Smallpox	22
Tetanus	1
Tuberculosis	39
Typhoid fever	71
Whooping cough	27

ARIZONA.

Diphtheria	1
Mumps	2
Scarlet fever	1
Tuberculosis	2

ARKANSAS.

Chicken pox	2
Diphtheria	11
Hookworm disease	5
Influenza	23
Malaria	142
Measles	26
Mumps	7
Ophthalmia neonatorum	1
Pellagra	10
Scarlet fever	1
Smallpox	5
Trachoma	4
Tuberculosis	11
Typhoid fever	46
Whooping cough	23

CALIFORNIA.

	Cases.
Cerebrospinal meningitis:	
Los Angeles	1
Stanislaus County	1
Diphtheria	151
Influenza	9
Lethargic encephalitis:	
Los Angeles	1
San Gabriel	1
Measles	14
Poliomyelitis:	
Los Angeles	2
Los Angeles County	2
Oakland	2
Pasadena	1
Scarlet fever	80
Smallpox:	
Compton	8
Los Angeles	15
Scattering	17
Typhoid fever	28

COLORADO.
(Exclusive of Denver.)

Chicken pox	4
Diphtheria	14
Mumps	4
Pneumonia	1
Poliomyelitis	1
Scarlet fever	14
Smallpox	1
Tuberculosis	29
Typhoid fever	6
Whooping cough	1

CONNECTICUT.

Chicken pox	1
Diphtheria	41
Dysentery (bacillary)	1
German measles	1
Influenza	3

CONNECTICUT—continued.

	Cases.
Malaria	1
Measles	6
Mumps	4
Ophthalmia neonatorum	1
Pneumonia (lobar)	8
Poliomyelitis	5
Scarlet fever	24
Tetanus	1
Tuberculosis (all forms)	36
Typhoid fever	10
Whooping cough	22

DELAWARE.

Diphtheria	1
Poliomyelitis	1
Scarlet fever	4
Tuberculosis	4
Typhoid fever	3
Whooping cough	1

FLORIDA.

Diphtheria	20
Influenza	1
Malaria	24
Pneumonia	1
Typhoid fever	8

GEORGIA.

Chicken pox	1
Diphtheria	47
Hookworm disease	7
Influenza	2
Malaria	19
Mumps	6
Pneumonia	5
Scarlet fever	7
Tetanus	1
Tuberculosis (pulmonary)	21
Typhoid fever	26

ILLINOIS.

Cerebrospinal meningitis:	
Alexander County	1
Cook County	1
Greene County	1
Kane County	1
Madison County	1
Williamson County	1
Diphtheria:	
Cook County	50
Scattering	61
Influenza	22
Lethargic encephalitis:	
Cook County	1
Lake County	1
Will County	1
Measles	29
Pneumonia	235
Poliomyelitis:	
Cook County	3
De Kalb County	1
Douglas County	1
Kane County	2
La Salle County	1
Lake County	1
Lee County	1

ILLINOIS—continued.

	Cases.
Poliomyelitis—Continued.	
Macon County	1
Rock Island County	1
Warren County	2
Wayne County	1
Scarlet fever:	
Cook County	52
St. Clair County	9
Scattering	48
Smallpox	16
Tuberculosis	316
Typhoid fever:	
Cook County	13
Scattering	31
Whooping cough	183

INDIANA.

Chicken pox	23
Diphtheria	51
Influenza	22
Measles	6
Mumps	1
Pneumonia	4
Poliomyelitis	5
Scarlet fever	50
Smallpox	18
Trachoma	1
Tuberculosis	34
Typhoid fever	19
Whooping cough	13

IOWA.

Cerebrospinal meningitis	2
Diphtheria	6
Poliomyelitis—Clinton	9
Scarlet fever	19
Smallpox	11
Typhoid fever	1

KANSAS.

Chicken pox	8
Diphtheria	32
Dysentery	1
German measles	1
Influenza	4
Malaria	1
Measles	2
Mumps	32
Pneumonia	9
Scarlet fever	51
Smallpox	1
Tuberculosis	41
Typhoid fever	34
Vincent's angina	1
Whooping cough	27

LOUISIANA.

Diphtheria	14
Dysentery	2
Malaria	14
Paratyphoid fever	1
Pneumonia	21
Scarlet fever	7
Smallpox	1
Tuberculosis	23
Typhoid fever	30

MAINE.

	Cases.
Cerebrospinal meningitis	1
Chicken pox	1
Diphtheria	8
German measles	3
Measles	3
Mumps	8
Pneumonia	2
Poliomyelitis	12
Scarlet fever	6
Tetanus	1
Tuberculosis	4
Typhoid fever	10
Vincent's angina	1
Whooping cough	12

MARYLAND.[1]

Cerebrospinal meningitis	1
Chicken pox	8
Diphtheria	33
Dysentery	4
Influenza	14
Malaria	5
Measles	8
Mumps	3
Paratyphoid fever	1
Pellagra	1
Pneumonia (all forms)	30
Poliomyelitis	11
Scarlet fever	15
Tuberculosis	65
Typhoid fever	51
Whooping cough	60

MASSACHUSETTS.

Cerebrospinal meningitis	3
Chicken pox	24
Conjunctivitis (suppurative)	9
Diphtheria	86
German measles	3
Influenza	4
Measles	33
Mumps	22
Ophthalmia neonatorum	21
Pneumonia (lobar)	29
Poliomyelitis	13
Scarlet fever	107
Septic sore throat	1
Trachoma	2
Tuberculosis (all forms)	110
Typhoid fever	14
Whooping cough	29

MICHIGAN.

Diphtheria	82
Measles	71
Pneumonia	39
Scarlet fever	151
Smallpox	12
Tuberculosis	46
Typhoid fever	28
Whooping cough	109

MINNESOTA.

Cerebrospinal meningitis	1
Chicken pox	16

[1] Week ended Friday.

MINNESOTA—continued.

	Cases.
Diphtheria	82
Influenza	1
Measles	19
Poliomyelitis	6
Scarlet fever	122
Smallpox	37
Tuberculosis	106
Typhoid fever	9
Whooping cough	14

MISSISSIPPI.

Diphtheria	19
Scarlet fever	7
Smallpox	5
Typhoid fever	28

MISSOURI.

(Exclusive of St. Louis.)

Chicken pox	4
Diphtheria	29
Influenza	1
Malaria	1
Measles	2
Mumps	3
Pneumonia	3
Poliomyelitis	3
Scarlet fever	42
Tuberculosis	18
Typhoid fever	27
Whooping cough	9

MONTANA.

Diphtheria	16
Poliomyelitis:	
Billings	1
Bozeman R. F. D	1
Bursett	1
Butte	1
Livingston	3
Lolo	2
Missoula	6
Missoula R. F. D	2
Scarlet fever	9
Smallpox	9
Typhoid fever	2

NEW JERSEY.

Cerebrospinal meningitis	1
Chicken pox	35
Diphtheria	58
Dysentery	1
Influenza	1
Malaria	1
Measles	16
Pneumonia	54
Poliomyelitis	8
Scarlet fever	45
Smallpox	10
Typhoid fever	21
Whooping cough	146

NEW MEXICO.

Diphtheria	10
Influenza	1
Malaria	1

NEW MEXICO—continued.

	Cases.
Measles	13
Mumps	5
Pneumonia	1
Scarlet fever	1
Trachoma	1
Tuberculosis	14
Typhoid fever	40
Whooping cough	11

NEW YORK.

(Exclusive of New York City.)

Cerebrospinal meningitis	5
Diphtheria	95
Influenza	5
Lethargic encephalitis	3
Measles	28
Pneumonia	82
Poliomyelitis	48
Scarlet fever	75
Smallpox	4
Typhoid fever	49
Whooping cough	206

NORTH CAROLINA.

Cerebrospinal meningitis	1
Chicken pox	12
Diphtheria	209
German measles	1
Measles	14
Scarlet fever	46
Septic sore throat	6
Smallpox	7
Typhoid fever	39
Whooping cough	96

OKLAHOMA.

(Exclusive of Oklahoma City and Tulsa.)

Diphtheria	10
Poliomyelitis—Washington County	1
Smallpox	3
Typhoid fever	23

OREGON.

Chicken pox	10
Diphtheria:	
Portland	9
Scattering	1
Influenza	3
Measles	1
Mumps	5
Pneumonia	15
Scarlet fever	20
Smallpox	2
Tuberculosis	23
Typhoid fever	9
Whooping cough	4

SOUTH DAKOTA.

Anthrax	1
Chicken pox	1
Diphtheria	1
Measles	1
Mumps	2
Scarlet fever	28

[1] Deaths.

SOUTH DAKOTA—continued.

	Cases.
Smallpox	3
Typhoid fever	2
Whooping cough	5

TEXAS.

Chicken pox	2
Dengue	12
Diphtheria	20
Dysentery (epidemic)	20
Influenza	11
Leprosy	1
Malta fever	3
Measles	6
Mumps	23
Ophthalmia neonatorum	2
Paratyphoid fever	6
Pellagra	22
Pneumonia	3
Poliomyelitis	1
Scarlet fever	13
Small pox	42
Tetanus	2
Trachoma	5
Tuberculosis	47
Typhoid fever	46
Typhus fever	3
Whooping cough	30

VERMONT.

Chicken pox	13
Diphtheria	1
Mumps	1
Poliomyelitis	1
Typhoid fever	1
Whooping cough	15

VIRGINIA.

Lethargic encephalitis—Wise County	1
Poliomyelitis—Rockingham County	1

WASHINGTON.

Chicken pox	14
Diphtheria	33
Measles	3
Mumps	11
Pneumonia	1
Poliomyelitis:	
Chelan County	7
Grays Harbor County	1
Island County	3
King County	1
Kitsap County	1
Kittitas County	8
Pierce County	5
Aberdeen	2
Everett	1
Seattle	19
Spokane	9
Tacoma	30
Scarlet fever	24
Smallpox	13
Tuberculosis	32
Typhoid fever	8
Whooping cough	4

WEST VIRGINIA.

	Cases.
Diphtheria	3
Poliomyelitis:	
Bridgeport	1
Sistersville	1
Wheeling	1
Scarlet fever	20
Typhoid fever	23

WISCONSIN.

	Cases.
Milwaukee:	
Chicken pox	10
Diphtheria	7
Measles	3
Mumps	3
Pneumonia	2
Scarlet fever	5
Tuberculosis	6
Whooping cough	13
Scattering:	
Chicken pox	28
Diphtheria	37
German measles	1
Influenza	5
Measles	16
Mumps	3
Pneumonia	6
Poliomyelitis	8
Scarlet fever	50
Smallpox	10
Tuberculosis	19
Typhoid fever	7
Whooping cough	72

Reports for Week Ended September 20, 1924.

DISTRICT OF COLUMBIA.

	Cases.
Diphtheria	7
Measles	2
Poliomyelitis	2
Scarlet fever	8
Tuberculosis	25
Typhoid fever	8
Whooping cough	6

NEBRASKA.

	Cases.
Chicken pox	2
Diphtheria	27
Measles	1
Mumps	1
Scarlet fever	8
Smallpox	1
Tuberculosis	2
Typhoid fever	4
Whooping cough	1

NORTH DAKOTA.

	Cases.
Cerebrospinal meningitis	1
Chicken pox	1
Diphtheria	6
Lethargic encephalitis	1
Measles	3
Poliomyelitis	5
Scarlet fever	6
Typhoid fever	1
Whooping cough	8

SUMMARY OF MONTHLY REPORTS FROM STATES.

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week.

State.	Cerebrospinal meningitis.	Diphtheria.	Influenza.	Malaria.	Measles.	Pellagra.	Poliomyelitis.	Scarlet fever.	Smallpox.	Typhoid fever.
August, 1924.										
Arkansas	1	13	55	636	75	14	1	8	6	168
District of Columbia	0	20	0		1	0	1	27	1	17
Hawaii	2	13	22	1	14					6
Illinois	11	269	193	11	205		35	208	46	168
Indiana	1	113	36				18	103		138
Iowa	3	46			21		3	29	21	1
Kansas	8	56	7	1	18	0	2	104	13	132
Mississippi		82	178	12,576	99	536	5	43	29	438
Michigan		260	2		152	2	73	436	71	99
Ohio	3	234	6	4	151	0	27	301	182	201
Oregon		98		1	10			43	39	26
Pennsylvania	5	531		5		3	43	375		317
Virginia	4	178	310	343	112	20	30	82	11	326
Washington	2	105	0	0	21	0	33	74	71	52
Wisconsin	6	124	6	0	143	0	1	156	53	19

RECIPROCAL NOTIFICATION, AUGUST, 1924.

Cases of communicable diseases referred during August, 1924, to other State health departments by departments of health of certain States.

Referred by—	Cerebro-spinal menin-gitis.	Diph-theria.	Polio-myelitis.	Small-pox.	Tuber-culosis.	Typhoid fever.
Connecticut				1		
Illinois				1	4	2
Massachusetts						1
Minnesota					71	2
New Jersey						2
New York	1	1	1	2		2

GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES.

Diphtheria.—For the week ended September 13, 1924, 35 States reported 1,202 cases of diphtheria. For the week ended September 15, 1923, the same States reported 1,635 cases of this disease. One hundred and one cities, situated in all parts of the country and having an aggregate population of more than 28,600,000, reported 512 cases of diphtheria for the week ended September 13, 1924. Last year, for the corresponding week, they reported 686 cases. The estimated expectancy for these cities was 784 cases of diphtheria. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

Measles.—Thirty States reported 295 cases of measles for the week ended September 13, 1924, and 790 cases of this disease for the week ended September 15, 1923. One hundred and one cities reported 101 cases of measles for the week this year and 221 cases last year.

Scarlet fever.—Scarlet fever was reported for the week as follows: Thirty-five States—this year, 922 cases; last year, 1,059 cases. One hundred and one cities—this year, 353; last year, 360 cases; estimated expectancy, 372 cases.

Smallpox.—For the week ended September 13, 1924, 35 States reported 238 cases of smallpox. Last year, for the corresponding week, they reported 175 cases. One hundred and one cities reported smallpox for the week as follows: 1924, 63 cases; 1923, 30 cases; estimated expectancy, 28 cases. These cities reported 5 deaths from smallpox for the week this year.

Typhoid fever.—Seven hundred and thirty-three cases of typhoid fever were reported for the week ended September 13, 1924, by 35 States. For the corresponding week of 1923 the same States reported 883 cases. One hundred and one cities reported 228 cases of typhoid fever for the week this year and 252 cases for the week last year. The estimated expectancy for these cities was 247 cases.

Influenza and pneumonia.—Deaths from influenza and pneumonia (combined) were reported for the week by 101 cities as follows: 1924, 308 deaths; 1923, 301 deaths.

City reports for week ended September 13, 1924.

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence how many cases of the disease under consideration may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceding years. When the reports include several epidemics, or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during nonepidemic years.

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1915 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city.	Chicken pox, cases reported.	Diphtheria.		Influenza.		Measles, cases reported.	Mumps, cases reported.	Pneumonia, deaths reported.	Scarlet fever.	
		Cases, estimated expectancy.	Cases reported.	Cases reported.	Deaths reported.				Cases, estimated expectancy.	Cases reported.
NEW ENGLAND.										
Maine:										
Lewiston	0	1	0	0	0	0	0	0	1	1
Portland	1	1	1	0	0	0	0	0	1	0
New Hampshire:										
Concord	0	1	0	0	0	0	0	0	0	0
Nashua	0	1	0	0	0	0	0	0	1	0
Vermont:										
Barre	----	0	----	----	----	----	----	----	1	----
Burlington	0	1	0	0	0	0	0	0	2	0
Massachusetts:										
Boston	3	35	12	0	0	9	0	8	13	21
Fall River	4	3	0	0	0	0	1	1	1	1
Springfield	0	2	0	0	0	0	2	0	2	6
Worcester	----	3	5	0	0	0	----	1	3	1
Rhode Island:										
Pawtucket	0	0	0	0	0	0	0	1	0	0
Providence	0	6	5	0	0	0	0	2	3	2
Connecticut:										
Bridgeport	0	6	9	0	0	2	0	2	1	0
Hartford	0	5	3	0	0	1	2	0	2	0
New Haven	0	3	0	0	0	2	0	1	1	2
MIDDLE ATLANTIC.										
New York:										
Buffalo	0	17	8	0	0	3	0	3	8	6
New York	20	99	68	7	2	19	20	71	35	19
Rochester	----	5	0	0	0	1	----	2	3	2
Syracuse	1	7	1	0	0	3	0	4	4	1
New Jersey:										
Camden	0	2	3	0	0	0	0	0	1	0
Newark	2	10	2	5	0	5	2	6	4	1
Trenton	1	4	3	0	0	0	0	0	0	1
Pennsylvania:										
Philadelphia	4	37	38	----	0	5	3	24	19	7
Pittsburgh	2	23	13	----	0	4	11	10	12	11
Reading	0	3	3	0	0	0	1	0	1	0
EAST NORTH CENTRAL.										
Ohio:										
Cincinnati	----	13	----	----	----	----	----	----	5	----
Cleveland	6	25	5	0	0	5	3	6	13	7
Columbus	1	5	3	0	0	0	0	1	3	1
Toledo	2	10	3	0	0	1	0	0	5	1
Indiana:										
Fort Wayne	0	3	3	0	0	0	0	0	1	3
Indianapolis	----	16	2	0	0	0	----	7	4	2
South Bend	0	2	0	0	0	2	0	0	3	2
Terre Haute	0	2	1	0	0	0	0	0	1	3
Illinois:										
Chicago	13	93	40	3	1	11	14	24	46	22
Cicero	0	3	0	0	0	0	1	0	0	0
Peoria	0	2	0	0	0	0	0	1	3	1
Springfield	----	1	2	0	0	0	----	0	1	2
Michigan:										
Detroit	2	49	21	5	1	3	1	11	30	22
Flint	0	5	1	0	0	0	0	0	3	5
Grand Rapids	0	5	0	0	0	1	0	0	2	4
Saginaw	0	1	0	0	0	0	0	1	1	1

City reports for week ended September 13, 1924—Continued.

Division, State, and city.	Chicken pox, cases reported.	Diphtheria.		Influenza.		Measles, cases reported.	Mumps, cases reported.	Pneumonia, deaths reported.	Scarlet fever.	
		Cases, estimated expectancy.	Cases reported.	Cases reported.	Deaths reported.				Cases, estimated expectancy.	Cases reported.
EAST NORTH CENTRAL—contd.										
Wisconsin:										
Madison	1	1	0	0		1	4		0	2
Milwaukee	3	13	6	0	0	1	3	0	15	12
Racine	0	1	0	0	0	0	0	1	2	5
Superior	0	1	1	0	0	0	0	0	1	0
WEST NORTH CENTRAL.										
Minnesota:										
Duluth	0	3	3	0	0	0	1	3	2	18
Minneapolis	3	20	20	0	0	1	2	3	9	18
St. Paul		12	14	0	0	1		1	5	7
Iowa:										
Des Moines	0	4	4	0		0	0		4	3
Sioux City	0	1	2	0		0	0		1	0
Waterloo	0	1	0	0		0	0		2	1
Missouri:										
Kansas City	0	6	1	0	0	0	0	6	3	8
St. Joseph	0	2	2	0	0	0	0	2	1	1
St. Louis	0	33	31	0	0	1	3		12	45
North Dakota:										
Fargo	2	1	0	0	0	0	1	0	1	1
Grand Forks	0	1	2	0		0	0		3	0
South Dakota:										
Aberdeen			0	0		1				2
Sioux Falls	0	0	0	0	0	0	0	0	1	0
Nebraska:										
Lincoln	0	1	3	0	0	0	0	0	1	1
Omaha	0	12	12	0	0	1	0	5	2	2
Kansas:										
Topeka	0	1	1	0	0	0	2	1	1	3
Wichita	0	2	3	0	0	0	2	2	2	0
SOUTH ATLANTIC.										
Delaware:										
Wilmington		2							2	
Maryland:										
Baltimore	1	15	18	0	1	4	0	12	8	3
Cumberland		1	0	0	0	0		0	1	0
Frederick		0	0	0	0	0		0	0	0
Dist. of Columbia:										
Washington	0	6	1	0	0	1		6	4	5
Virginia:										
Lynchburg	0	1	0	0	0	0	15	0	0	0
Norfolk	0	2	0	0	0	0	0	4	1	3
Richmond	0	10	21	0	0	5	0	2	5	3
Roanoke	0	4	4	0	0	0	0	0	1	0
West Virginia:										
Charleston	0	2	0	0	0	0	0	0	2	1
Huntington	0	2	2	0		0	0		1	1
Wheeling		2	1	0	0	0		0	2	0
North Carolina:										
Raleigh	0	3	5	0	0	0	0	1	0	1
Wilmington		2	0	0	0	0		1	0	0
Winston-Salem	1	3	6	0	0	0	0	2	1	1
South Carolina:										
Charleston	0	1	3	0	0	0	0	0	0	1
Columbia	0	3	0	0	0	0	0	1	0	0
Greenville	0	1	4	0	0	0	0	1	1	1
Georgia:										
Atlanta	0	7	5	1	0	0	0	3	5	4
Brunswick		1							0	
Savannah	0	1	1	0	0	1	1	0	1	0
Florida:										
St. Petersburg	0		0	0	0	0	0	1	0	0
Tampa		1							0	

City reports for week ended September 13, 1924—Continued.

Division, State, and city.	Chicken pox, cases reported.	Diphtheria.		Influenza.		Measles, cases reported.	Mumps, cases reported.	Pneumonia, deaths reported.	Scarlet fever.	
		Cases, estimated expectancy.	Cases reported.	Cases reported.	Deaths reported.				Cases, estimated expectancy.	Cases reported.
EAST SOUTH CENTRAL.										
Kentucky:										
Covington	0	2	0	0	0	0	0	1	1	0
Lexington	0	1	0	0	0	0	0	1	0	0
Louisville	0	9	1	0	0	0	0	6	2	0
Tennessee:										
Memphis	0	8	3	0	0	0	0	3	2	1
Nashville	0	3	2	0	0	0	0	0	3	3
Alabama:										
Birmingham	0	6	1	0	0	1	0	4	3	2
Mobile	0	2	0	0	0	0	0	1	1	0
Montgomery	0	1	0	0	----	0	0	----	1	0
WEST SOUTH CENTRAL.										
Arkansas:										2
Fort Smith	0	0	1	0	----	0	0	----	1	2
Little Rock	0	2	1	1	0	0	1	0	2	0
Louisiana:										
New Orleans	0	9	9	0	0	0	0	5	1	2
Shreveport	0	----	1	0	0	0	0	0	----	0
Oklahoma:										
Oklahoma	0	1	1	0	0	0	0	0	2	1
Tulsa	0	1	1	0	----	0	0	----	2	4
Texas:										
Dallas	0	5	4	0	0	0	0	1	1	2
Galveston	0	0	0	0	0	0	0	0	0	0
Houston	0	2	2	0	0	0	0	1	0	4
San Antonio	----	1	0	0	0	0	----	3	1	0
MOUNTAIN.										
Montana:										
Billings	1	1	0	0	0	0	0	0	1	2
Great Falls	0	1	1	0	0	0	0	0	1	0
Helena	----	0	0	0	0	0	----	1	0	0
Missoula	0	0	1	0	0	0	0	0	0	0
Idaho:										
Boise	0	0	0	0	0	0	0	0	1	0
Colorado:										
Denver	0	11	7	0	0	2	4	5	3	5
Pueblo	0	5	0	0	0	1	1	2	1	3
New Mexico:										
Albuquerque	0	1	0	0	0	0	1	0	1	0
Utah:										
Salt Lake City	7	2	3	0	0	1	3	2	2	0
Nevada:										
Reno	0	0	0	0	0	0	0	0	0	0
PACIFIC.										
Washington:										
Seattle	8	4	11	0	----	0	1	----	5	6
Spokane	4	1	11	0	----	0	0	----	5	10
Tacoma	0	2	3	0	----	0	0	----	2	2
Oregon:										
Portland	3	3	12	0	0	0	3	4	3	0
California:										
Los Angeles	8	22	22	1	0	3	2	12	6	6
Sacramento	4	1	2	0	0	0	0	3	1	1
San Francisco	4	15	9	0	0	0	5	7	6	2

City reports for week ended September 13, 1924—Continued.

Division, State, and city.	Population July 1, 1923, estimated.	Smallpox.			Tuberculosis, deaths reported.	Typhoid fever.			Whooping cough, cases reported.	Deaths, all causes.
		Cases, estimated expectancy.	Cases reported.	Deaths reported.		Cases, estimated expectancy.	Cases reported.	Deaths reported.		
NEW ENGLAND.										
Maine:										
Lewiston	33,790	0	0	0	0	0	0	0	0	5
Portland	73,129	0	0	0	0	1	2	0	0	12
New Hampshire:										
Concord	22,408	0	0	0	0	0	0	0	0	4
Nashua	29,234	0	0	0	1	0	0	0	0	4
Vermont:										
Barre	[1] 10,008	0				0				
Burlington	23,613	0	0	0	0	0	0	0	0	3
Massachusetts:										
Boston	770,400	0	0	0	10	6	1	0	5	136
Fall River	120,912	0	0	0	2	2	0	0	7	36
Springfield	144,227	0	0	0	2	0	1	0	3	27
Worcester	191,927	0	0	0	0	2	1	0		44
Rhode Island:										
Pawtucket	68,799	0	0	0	1	0	0	0	0	12
Providence	242,378	0	0	0	2	2	2	0	2	62
Connecticut:										
Bridgeport	[1] 143,555	0	0	0	2	1	0	0	1	24
Hartford	[1] 138,036	0	0	0	0	2	0	0	3	35
New Haven	172,967	0	0	0	4	3	2	1	3	42
MIDDLE ATLANTIC.										
New York:										
Buffalo	536,718	0	0	0	10	4	2	1	31	115
New York	5,927,625	0	0	0	[2] 93	48	38	6	224	1,038
Rochester	317,867	0	0	0	2	2	0	0		58
Syracuse	184,511	0	0	0	1	1	0	0		44
New Jersey:										
Camden	124,157	0	2	1	2	2	1	0	3	28
Newark	438,699	0	0	0	7	3	0	0	79	91
Trenton	127,390	0	0	0	1	1	0	0	9	42
Pennsylvania:										
Philadelphia	1,922,788	0	0	0	42	17	14	3	82	415
Pittsburgh	613,442	0	0	2	4	4	1	0	10	119
Reading	110,917	0	0	0	1	1	3	0	12	28
EAST NORTH CENTRAL.										
Ohio:										
Cincinnati	405,312	0				3				
Cleveland	888,519	1	0	0	11	4	6	0	25	135
Columbus	261,082	0	2	0	2	2	1	0	1	49
Toledo	268,338	1	3	1	4	3	3	0	6	37
Indiana:										
Fort Wayne	93,573	1	0	0	0	2	2	0	0	20
Indianapolis	342,718	1	4	0	4	2	3	0		103
South Bend	76,709	1	1	0	1	1	0	0	0	18
Terre Haute	68,939	0	0	0	1	0	0	0	0	22
Illinois:										
Chicago	2,886,121	1	2	0	40	8	10	1	97	626
Cicero	55,968	0	0	0	0	0	0	0	2	6
Peoria	79,675	0	0	0	1	0	0	0	0	20
Springfield	61,833	0	0	0	0	2	1	0		11
Michigan:										
Detroit	995,668	2	6	1	23	6	6	3	25	219
Flint	117,968	0	0	0	0	2	0	0	0	11
Grand Rapids	145,947	1	0	0	0	1	0	0	2	13
Saginaw	69,754	0	0	0	1	1	1	0	2	18
Wisconsin:										
Madison	42,519	0	0			0	0		2	5
Milwaukee	484,595	1	1	0	6	0	1	1	29	86
Racine	64,393	0	0	0	1	0	0	0	2	13
Superior	[1] 39,671	0	0	0	1	0	0	0	0	4
WEST NORTH CENTRAL.										
Minnesota:										
Duluth	106,289	0	0	0	1	0	0	0	0	30
Minneapolis	409,125	2	2	0	0	2	1	0	4	69
St. Paul	241,891	1	7	0	4	2	0	0		56

[1] Population Jan. 1, 1920.

[2] Pulmonary only.

City reports for week ended September 13, 1924—Continued.

Division, State, and city.	Population July 1, 1923, estimated.	Smallpox.			Tuberculosis, deaths reported.	Typhoid fever.			Whooping cough, cases reported.	Deaths, all causes.
		Cases, estimated expectancy.	Cases reported.	Deaths reported.		Cases, estimated expectancy.	Cases reported.	Deaths reported.		
WEST NORTH CENTRAL—contd.										
Iowa:										
Des Moines	140,923	1	1			0	0		0	
Sioux City	79,662	0	0			0	0		0	
Waterloo	30,667	0	0			0	0		0	
Missouri:										
Kansas City	351,819	1	0	0	6	3	4	3	1	83
St. Joseph	78,232	0	0	0	0	1	1	0	1	26
St. Louis	803,853	0	2	0	9	7	9	0	2	190
North Dakota:										
Fargo	24,841	1	0	0	0	0	0	0	8	4
Grand Forks	14,547	0	0			0	0		0	
South Dakota—										
Aberdeen	15,829		0				0			
Sioux Falls	29,206	0	0	0	0	0	0	0	0	5
Nebraska:										
Lincoln	58,761	0	0	0	0	0	0	0	3	14
Omaha	204,382	1	0	0	2	1	1	0	0	49
Kansas:										
Topeka	52,555	0	0	0	0	1	0	0	2	9
Wichita	79,261	0	0	0	1	2	3	1	0	27
SOUTH ATLANTIC.										
Delaware:										
Wilmington	117,728	0				2				
Maryland:										
Baltimore	773,580	0	0	0	16	14	11	0	33	192
Cumberland	32,361	0	0	0	0	2	0	0		7
Frederick	11,301	0	0	0	0	0	0	0		7
District of Columbia:										
Washington	[1] 437,571	1	0	0	15	5	11	1	3	120
Virginia:										
Lynchburg	30,277	0	0	0	1	1	1	0	2	6
Norfolk	159,089	0	0	0	0	1	1	0	1	
Richmond	181,044	0	0	0	2	2	5	0		44
Roanoke	55,562	0	0	0	0	2	0	0	1	21
West Virginia:										
Charleston	45,597	0	0	0	2	2	2	0	0	13
Huntington	57,918	0	0			1	0		0	
Wheeling	[1] 56,208	0	0	0	0	1	9	0		11
North Carolina:										
Raleigh	29,171	0	1	0	1	1	0	0	2	16
Wilmington	35,719	0	0	0	0	1	0	0		12
Winston-Salem	56,230	1	0	0	2	2	2	0	2	19
South Carolina:										
Charleston	71,245	0	0	0	1	2	2	1	0	22
Columbia	39,688	0	1	0	2	1	0	0	0	17
Greenville	25,789	0	0	0	0	1	0	0	0	5
Georgia:										
Atlanta	222,963	1	0	0	3	5	0	0	0	71
Brunswick	15,937	0				0				
Savannah	89,448	0	0	0	2	1	0	0	0	20
Florida:										
St. Petersburg	24,403	0	0	0	1	0	0	0	0	12
Tampa	56,050	0				0				
EAST SOUTH CENTRAL.										
Kentucky:										
Covington	57,877	0	0	0	0	1	0	0	0	9
Lexington	43,673	0	0	0	1	1	0	0	0	15
Louisville	257,671	0	0	0	4	6	4	1	0	72
Tennessee:										
Memphis	170,067	0	0	0	2	2	10	1	3	60
Nashville	121,128	0	0	0	6	5	4	2	0	41
Alabama:										
Birmingham	195,901	0	3	0	3	4	7	0	0	42
Mobile	63,858	0	0	0	1	0	0	0	0	18
Montgomery	45,383	0	0	0	0	1	0	0	0	

[1] Population Jan. 1, 1920.

City reports for week ended September 13, 1924—Continued.

Division, State, and city.	Population, July 1, 1923, estimated.	Smallpox.			Tuberculosis, deaths reported.	Typhoid fever.			Whooping cough, cases reported.	Deaths, all causes.
		Cases, estimated expectancy.	Cases reported.	Deaths reported.		Cases, estimated expectancy.	Cases reported.	Deaths reported.		
WEST SOUTH CENTRAL.										
Arkansas:										
Fort Smith	30,635	0	0	----	----	1	0	----	7	----
Little Rock	70,916	0	0	0	3	2	3	0	0	----
Louisiana:										
New Orleans	404,575	1	0	0	14	4	8	0	0	121
Shreveport	54,590	----	1	0	1	----	0	0	0	10
Oklahoma:										
Oklahoma	101,150	0	0	0	5	2	3	0	0	15
Tulsa	102,018	0	0	----	----	2	2	----	----	----
Texas:										
Dallas	177,274	0	3	0	1	2	3	1	19	34
Galveston	46,877	0	0	0	2	0	0	0	0	14
Houston	154,970	0	0	0	4	1	1	1	0	27
San Antonio	184,727	0	0	0	6	0	0	0	----	31
MOUNTAIN.										
Montana:										
Billings	16,927	0	0	0	1	1	0	0	2	5
Great Falls	27,787	0	0	0	1	1	0	0	0	5
Helena	[1] 12,037	0	0	0	1	0	0	0	----	11
Missoula	[1] 12,668	0	0	0	0	0	0	0	0	2
Idaho:										
Boise	22,806	1	0	0	0	1	0	0	0	3
Colorado:										
Denver	272,031	2	0	0	4	5	5	0	31	71
Pueblo	43,519	0	0	0	3	2	0	0	0	17
New Mexico:										
Albuquerque	16,648	0	0	0	2	2	2	0	0	12
Utah:										
Salt Lake City	126,241	1	0	0	1	2	4	0	2	26
Nevada:										
Reno	12,429	0	0	0	0	0	0	0	0	4
PACIFIC.										
Washington:										
Seattle	[1] 315,685	1	0	----	----	2	5	----	7	----
Spokane	104,573	1	3	----	----	1	1	----	0	----
Tacoma	101,731	1	0	----	----	0	3	----	0	----
Oregon:										
Portland	273,621	3	4	0	1	2	3	0	1	52
California:										
Los Angeles	666,853	1	22	0	23	5	5	2	14	173
Sacramento	69,950	1	1	0	3	1	1	0	0	24
San Francisco	539,038	1	0	1	6	2	0	0	3	122

Division, State, and city.	Cerebrospinal meningitis.		Lethargic encephalitis.		Pellagra.		Poliomyelitis (infantile paralysis).		
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases, est. expectancy.	Cases.	Deaths.
NEW ENGLAND.									
New Hampshire:									
Concord	0	0	0	0	0	0	0	2	0
Massachusetts:									
Boston	1	1	2	0	1	0	2	6	0
Fall River	1	0	0	0	0	0	1	5	0
Worcester	0	0	0	0	0	0	0	3	0
Rhode Island:									
Providence	1	0	0	0	0	0	0	0	0
Connecticut:									
Hartford	0	0	0	0	0	0	0	1	0
New Haven	0	0	0	0	0	0	1	2	0

[1] Population Jan. 1, 1920.

City reports for week ended September 13, 1924—Continued.

Division, State, and city.	Cerebrospinal meningitis.		Lethargic encephalitis.		Pellagra.		Poliomyelitis (infantile paralysis).		
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases, est. expectancy.	Cases.	Deaths.
MIDDLE ATLANTIC.									
New York:									
Buffalo	0	0	0	0	0	0	0	3	0
New York	2	0	7	6	0	0	3	13	4
Rochester	0	0	0	0	0	0	0	1	0
Syracuse	0	0	1	0	0	0	0	3	1
New Jersey:									
Newark	1	0	0	0	0	0	1	0	0
Trenton	0	0	0	0	0	0	0	1	0
Pennsylvania:									
Philadelphia	0	0	0	0	0	0	1	2	0
EAST NORTH CENTRAL.									
Ohio:									
Cleveland	0	0	0	0	0	0	1	2	0
Indiana:									
Indianapolis	0	0	0	0	0	0	0	2	0
Illinois:									
Chicago	1	1	0	0	0	1	5	4	0
Michigan:									
Detroit	0	0	1	0	0	0	1	30	5
Grand Rapids	0	0	0	0	0	0	0	2	1
Wisconsin:									
Milwaukee	0	0	0	0	0	0	0	1	0
WEST NORTH CENTRAL.									
Minnesota:									
Minneapolis	0	0	0	0	0	0	0	3	0
St. Paul	0	0	0	0	0	0	1	2	0
Missouri:									
St. Louis	1	1	0	0	0	0	1	1	0
North Dakota:									
Fargo	0	0	0	0	0	0	0	2	0
South Dakota:									
Sioux Falls	0	0	0	0	0	0	0	1	0
SOUTH ATLANTIC.									
Maryland:									
Baltimore	0	0	2	2	0	0	2	14	1
Virginia:									
Norfolk	0	0	0	0	0	0	0	2	0
South Carolina:									
Columbia	0	1	0	0	0	2	0	0	0
Georgia:									
Atlanta	0	1	0	0	0	0	0	0	0
WEST SOUTH CENTRAL.									
Arkansas:									
Little Rock	0	0	0	0	0	1	0	0	0
Texas:									
Dallas	0	0	0	0	1	0	0	0	0
Galveston	0	0	0	0	0	1	0	0	0
Houston	0	0	0	0	0	0	0	1	0
MOUNTAIN.									
Montana:									
Helena	1	1	0	0	0	0	0	0	0
Missoula	0	0	0	0	0	0	0	10	0
PACIFIC.									
Washington:									
Seattle	0	-------	0	-------	0	-------	0	4	-------
Spokane	0	-------	0	-------	0	-------	0	1	-------
Tacoma	0	-------	0	-------	0	-------	0	2	-------
California:									
Los Angeles	1	0	1	1	0	0	0	0	0

The following table gives a summary of the reports from 105 cities for the 10-week period ended September 13, 1924. The cities included in this table are those whose reports have been published for all 10 weeks in the Public Health Reports. Eight of these cities did not report deaths. The aggregate population of the cities reporting cases was estimated at nearly 29,000,000 on July 1, 1923, which is the latest date for which estimates are available. The cities reporting deaths had more than 28,000,000 population on that date. The number of cities included in each group and the aggregate population are shown in a separate table below.

Summary of weekly reports from cities, July 6 to September 13, 1924.

DIPHTHERIA CASES.

	1924, week ended—									
	July 12.	July 19.	July 26.	Aug. 2.	Aug. 9.	Aug. 16.	Aug. 23.	Aug. 30.	Sept. 6.	Sept. 13.
Total	693	652	560	477	538	456	494	480	455	519
New England	55	71	59	47	60	47	48	35	49	[1] 35
Middle Atlantic	301	274	222	188	197	149	189	167	139	139
East North Central	135	120	99	83	103	91	88	[2] 69	85	[3] 86
West North Central	52	36	37	40	43	38	49	50	47	91
South Atlantic	19	26	21	25	22	40	39	[4] 68	70	[5] 73
East South Central	3	2	6	3	6	7	9	8	7	7
West South Central	5	5	15	12	7	13	15	11	10	18
Mountain	36	25	14	5	10	22	14	16	[6] 19	12
Pacific	87	93	87	71	90	49	43	56	29	58

MEASLES CASES.

Total	987	676	528	406	253	178	136	121	109	101
New England	66	52	59	41	11	23	23	26	11	[1] 14
Middle Atlantic	422	283	204	160	97	65	46	41	56	40
East North Central	295	202	155	126	75	51	37	[2] 25	18	[3] 24
West North Central	29	35	22	16	11	7	4	9	3	4
South Atlantic	91	55	43	34	36	16	10	[4] 11	11	[5] 11
East South Central	15	13	6	3	2	4	5	1	1	1
West South Central	7	3	5	3	0	1	1	0	1	0
Mountain	11	7	6	7	3	1	1	4	[6] 2	4
Pacific	51	26	28	16	18	10	9	4	6	3

SCARLET-FEVER CASES.

Total	561	441	340	369	360	248	291	307	253	356
New England	50	39	38	40	36	24	28	29	35	[1] 33
Middle Atlantic	144	114	90	73	85	49	55	69	50	48
East North Central	168	102	90	126	108	57	74	[2] 74	68	[3] 94
West North Central	100	93	65	65	61	61	75	58	48	104
South Atlantic	47	33	15	20	21	12	21	[4] 26	22	[5] 24
East South Central	7	7	7	2	3	10	13	9	2	6
West South Central	8	5	9	11	5	9	5	5	5	10
Mountain	4	14	5	7	12	5	4	17	[6] 3	10
Pacific	33	34	21	25	29	21	16	20	20	27

[1] Figures for Barre, Vt., estimated. Reports not received at time of going to press.
[2] Figures for Cleveland, Ohio, estimated.
[3] Figures for Cincinnati, Ohio, estimated.
[4] Figures for Raleigh, N. C., estimated.
[5] Figures for Wilmington, Del., Brunswick, Ga., and Tampa, Fla., estimated.
[6] Figures for Helena, Mont., estimated.

Summary of weekly reports from cities, July 6 to September 13, 1924—Continued.

SMALLPOX CASES.

	1924, week ended—									
	July 12.	July 19.	July 26.	Aug. 2.	Aug. 9.	Aug. 16.	Aug. 23.	Aug. 30.	Sept. 6.	Sept. 13.
Total	169	158	108	116	106	93	71	88	66	64
New England	1	0	0	0	0	0	0	0	0	[1] 0
Middle Atlantic	16	17	9	9	7	8	3	11	4	2
East North Central	33	44	36	28	23	16	20	[2] 12	9	[3] 16
West North Central	47	33	13	18	15	28	5	25	9	11
South Atlantic	3	5	3	3	4	6	4	[4] 2	5	[5] 2
East South Central	21	18	13	16	8	13	14	13	16	3
West South Central	1	0	0	2	0	0	1	1	1	4
Mountain	6	4	2	2	1	1	2	2	[6] 0	0
Pacific	41	37	32	38	48	21	22	22	22	26

TYPHOID-FEVER CASES.

Total	142	197	191	191	250	232	238	220	199	230
New England	6	7	6	4	6	15	8	12	6	[1] 9
Middle Atlantic	34	50	59	59	63	63	65	41	50	59
East North Central	20	20	17	20	30	29	22	[2] 22	27	[3] 32
West North Central	12	10	11	9	22	22	17	28	11	19
South Atlantic	25	36	25	31	44	37	35	[4] 34	36	[5] 47
East South Central	10	31	29	36	40	24	49	48	32	25
West South Central	21	26	22	17	19	26	29	25	10	15
Mountain	5	4	7	4	5	9	0	7	[6] 13	9
Pacific	9	13	15	11	21	7	13	3	14	15

INFLUENZA DEATHS.

Total	11	5	3	13	8	8	7	13	4	5
New England	0	0	1	2	0	0	0	1	0	[1] 0
Middle Atlantic	5	1	0	6	3	4	1	4	3	2
East North Central	1	1	0	0	2	2	2	[2] 3	0	[3] 2
West North Central	0	1	1	2	0	0	0	0	0	0
South Atlantic	2	1	1	1	2	0	3	[4] 2	1	[5] 1
East South Central	3	0	0	1	0	0	0	1	0	0
West South Central	0	0	0	0	1	0	1	2	0	0
Mountain	0	0	0	0	0	0	0	0	[6] 0	0
Pacific	0	1	0	1	0	2	0	0	0	0

PNEUMONIA DEATHS.

Total	318	307	304	292	269	271	251	315	313	305
New England	16	14	16	17	14	14	12	19	14	[1] 16
Middle Atlantic	141	127	126	131	121	115	102	136	152	120
East North Central	55	53	58	50	51	48	48	[2] 55	53	[3] 52
West North Central	22	17	13	14	9	17	13	18	9	23
South Atlantic	39	37	35	36	29	32	38	[4] 34	32	[5] 37
East South Central	9	12	15	12	10	10	5	12	17	15
West South Central	16	22	20	11	14	12	10	11	8	10
Mountain	10	4	7	4	8	7	10	13	[6] 11	10
Pacific	10	21	14	17	13	16	13	17	17	22

Number of cities included in summary of weekly reports and aggregate population of cities in each group, estimated as of July 1, 1923.

Group of cities.	Number of cities reporting cases.	Number of cities reporting deaths.	Aggregate population of cities reporting cases.	Aggregate population of cities reporting deaths.
Total	105	97	28, 898, 350	28, 140, 934
New England	12	12	2, 098, 746	2, 098, 746
Middle Atlantic	10	10	10, 304, 114	10, 304, 114
East North Central	17	17	7, 032, 535	7, 032, 535
West North Central	14	11	2, 515, 330	2, 381, 454
South Atlantic	22	22	2, 566, 901	2, 566, 901
East South Central	7	7	911, 885	911, 885
West South Central	8	6	1, 124, 564	1, 023, 013
Mountain	9	9	546, 445	546, 445
Pacific	6	3	1, 797, 830	1, 275, 841

[1] Figures for Barre, Vt., estimated. Reports not received at time of going to press.
[2] Figures for Cleveland, Ohio, estimated.
[3] Figures for Cincinnati, Ohio, estimated.
[4] Figures for Raleigh, N. C., estimated.
[5] Figures for Wilmington, Del., Brunswick, Ga., and Tampa, Fla., estimated.
[6] Figures for Helena, Mont., estimated.

FOREIGN AND INSULAR.

CUBA.

Compulsory Antityphoid Inoculation.

According to information received under date of September 5, 1924, antityphoid inoculation was made compulsory throughout the island of Cuba by presidential decree of July 30, 1924.

ECUADOR.

Plague—Guayaquil.

During the period August 16–31, 1924, a case of plague was notified at Guayaquil, Ecuador.

Plague-Infected Rats.

During the same period 9,156 rats were reported taken at Guayaquil, of which 29 rats were found plague infected.

FINLAND.

Communicable Diseases—August 1–15, 1924.

Communicable diseases were notified in Finland during the period August 1 to 15, 1924, as follows:

Disease.	Cases.	Disease.	Cases.
Diphtheria	35	Poliomyelitis	1
Dysentery	14	Scarlet fever	27
Lethargic encephalitis	1	Typhoid fever	24
Paratyphoid fever	33		

INDO-CHINA.

Cholera—Plague—Smallpox—May, 1924.

Cholera, plague, and smallpox were reported in Indo-China during the month of May, 1924, as follows:

Cholera.—Cases, 33; deaths, 12; reported in four Provinces. Corresponding period, 1923—cases, 60; deaths, 19, of which three cases with one death were among Europeans.

Plague.—Cases, 383; deaths, 263; reported in four Provinces. Corresponding period, 1923—cases, 253; deaths, 233.

Smallpox.—Cases, 585; deaths, 154; reported in five Provinces. Corresponding period, 1923—cases, 260.

JAMAICA.

Smallpox (Reported as Alastrim).

Smallpox (reported as alastrim) has been notified in the island of Jamaica as follows: Week ended August 23, 1924, 11 cases; week ended August 30, 1924, 17 cases, including three cases occurring in the parish of Kingston; week ended September 6, 1924, 13 cases, including one case reported for the parish of Kingston.

Chicken Pox.

Chicken pox has been reported as follows: Week ended August 30, 1924, three cases; week ended September 6, 1924, one case and one reported for the parish of Kingston.

JAVA.

Bacillary Dysentery—Soerabaya.

Bacillary dysentery has been reported at the port of Soerabaya, island of Java, as follows: Period April 1 to June 30, 1924, cases, 272; deaths, 161. July 1 to 21, 1924, cases, 21; deaths, 9. Population, estimated, 210,000.

Epidemic Smallpox.

Epidemic smallpox has been reported present in the island of Java as follows: Pasoeroean Residency, July 4, 1924, epidemic in three native villages. Soerabaya Residency, August 5, 1924, epidemic at the seaport of Soerabaya.

PANAMA.

Quarantine Against Amapala, Honduras, Rescinded.

According to information received under date of September 22, 1924, quarantine on account of yellow fever against arrivals from Amapala, Honduras, has been rescinded in the Panama Canal Zone, the authorities in Honduras having placed quarantine against Salvadorean ports.[1]

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[1] See Public Health Reports, Aug. 29, 1924, p. 2275.

POLAND.

Communicable Diseases, July 6–26, 1924.

Communicable diseases have been notified in Poland as follows:

JULY 6–12, 1924.

Disease.	Cases.	Deaths.	Districts showing greatest number of deaths.
Cerebrospinal meningitis	8	2	Poznan.
Diphtheria	44	5	Warsaw.
Dysentery	182	21	Stanislawow.
Malaria	75		
Measles	158	1	Lodz.
Scarlet fever	223	15	Warsaw.
Smallpox	2	2	Krakow.
Typhoid fever	177	7	Lwow.
Typhus fever	75	9	Do.
Whooping cough	111	8	Do.

JULY 13–19, 1924.

Cerebrospinal meningitis	7	6	Lodz.
Diphtheria	67	7	Pomerania.
Dysentery	233	11	Polesia.
Malaria	77		
Measles	122		
Relapsing fever	4		
Scarlet fever	195	18	Lodz.
Smallpox	10		
Typhoid fever	250	16	Do.
Typhus fever	64	2	Volhynia.
Whooping cough	150	4	Warsaw.

JULY 20–26, 1924.

Cerebrospinal meningitis	11	8	Lodz.
Diphtheria	61	5	Lwow.
Dysentery	313	27	Krakow.
Malaria	56		
Measles	89	1	Warsaw.
Relapsing fever	1	1	Do.
Scarlet fever	270	20	Lwow.
Smallpox	2	2	Warsaw.
Typhoid fever	263	23	Lodz.
Typhus fever	53	1	Nowogrodek.
Whooping cough	151	7	Warsaw.

Rabies.

During the week ended July 19, 1924, two deaths from rabies were reported in Poland, and during the week ended July 26, 1924, two deaths.

RUSSIA.

Cholera—Rostov-on-Don.

Information received under date of August 22, 1924, shows the occurrence at Rostov-on-Don, Russia, during the period August 5 to 7, 1924, of three cases of cholera.

Plague Among Marmots—Don Cossack Territory.

Plague among marmots was reported, August 8, 1924, present in six localities of the Salsky district, Don Cossack Territory.

VIRGIN ISLANDS.

Communicable Diseases—July, 1924.

During the month of July, 1924, communicable diseases were reported in the Virgin Islands of the United States as follows:

Island and disease.	Cases.	Remarks.
St. Thomas and St. John:		
Chancroid	2	
Fish poisoning	5	
Gonorrhea	4	Imported, 2.
Leprosy	1	
Measles	1	
Uncinariasis	1	
St. Croix:		
Dysentery	4	Entamebic, 2; unclassified, 2.
Filariasis	20	
Gonorrhea	2	
Leprosy	1	
Pellagra	1	
Syphilis	6	Secondary.
Tuberculosis	2	Chronic pulmonary.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER.

The reports contained in the following tables must not be considered as complete or final as regards either the lists of countries included or the figures for the particular countries for which reports are given.

Reports Received During Week Ended October 3, 1924.[1]

CHOLERA

Place.	Date.	Cases.	Deaths.	Remarks.
India				July 20–26, 1924: Cases, 5,104; deaths, 2,987. Corresponding week, 1923: Cases, 1,772; deaths, 924.
Bombay	Aug. 3–9	11	7	
Calcutta	Aug. 17–23	9	2	
Madras	do	5	2	
Indo-China				May 1–31, 1924: Cases, 33; deaths, 12. Corresponding period 1923: Cases, 60; deaths, 19.
Philippine Islands:				
Laguna Province—				
San Pablo	July 13–19	1	1	
Russia:				
Rostov-on-Don	Aug. 5–7	3		
Siam:				
Bangkok	July 27–Aug. 2	1	1	

PLAGUE.

British East Africa:				
Kenya—				
Kisumu	July 13–19	1		
Tanganyika Territory	June 26–July 3	3	2	
Uganda—				
Entebbe	Feb. 1–Apr. 30	59	54	
Celebes:				
Macassar and Menando	July 27–Aug. 2			1 plague rat.
Ceylon:				
Colombo	Aug. 3–16	5	6	1 from beyond city limits; plague-infected rodents, 5.
Ecuador:				
Guayaquil	Aug. 16–31	1		Rats taken, 9, 156; found infected, 29.
Egypt:				
Port Said	Aug. 20–26	1		
India				July 20–26, 1924: Cases, 91; deaths, 66. Corresponding period 1923: Cases, 728; deaths, 471.
Karachi	Aug. 17–23	2	2	
Indo-China				May 1–31, 1924: Cases, 383; deaths, 263. Corresponding period 1923: Cases, 253; deaths, 233.

[1] From medical officers of the Public Health Service, American consuls, and other sources.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received During Week Ended October 3, 1924—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Iraq:				
Bagdad	Aug. 3-9	1		
Russia:				
Don Cossack Territory—				
Salsky District				Aug. 8, 1924: Reported present in marmots in 6 localities.
Siam:				
Bangkok	July 27-Aug. 2	1	1	

SMALLPOX.

British East Africa:				
Tanganyika Territory	June 15-21	1		
Uganda—				
Entebbe	Feb. 1-29	2		
Chile:				
Antofagasta	Aug. 24-30	1		
China:				
Amoy	Aug. 10-16			Present.
Chungking	do			Do.
Gibraltar	Aug. 25-31	3		
Great Britain:				
Sheffield	do	1		
Greece:				
Saloniki	May 5-June 15		7	
India				July 20-26, 1924: Cases, 1,245; deaths, 250. Corresponding period, 1923: Cases, 870; deaths, 212.
Bombay	Aug. 3-9	18	13	
Calcutta	Aug. 17-23	7	7	
Karachi	do	4	1	
Madras	do	18	5	
Indo-China				May 1-31, 1924: Cases, 585; deaths, 154. Corresponding period 1923, cases, 260.
Jamaica				Aug. 17-Sept. 6, 1924: Cases, 41. (Reported as alastrim.)
Kingston	Aug. 24-Sept. 6	4		Reported as alastrim.
Java:				
East Java—				
Pasoeroean Residency	July 4			Epidemic.
Soerabaya—				
Soerabaya	July 20-26	38	10	Epidemic, Aug. 5, 1924.
Mexico:				
Mexico City	Aug. 17-30	6		Including municipalities in Federal district.
Poland				July 6-26, 1924: Cases, 14; deaths, 4.
Portugal:				
Oporto				Aug. 23-Sept. 6, 1924: Deaths, 3.
Spain:				
Cadiz	July 1-31		28	
Malaga	Aug. 31-Sept. 6		4	
Santander	Aug. 24-30		4	
Switzerland:				
Lucerne	Aug. 1-31	12		
Tunis:				
Tunis	Aug. 26-Sept. 1	1	2	

TYPHUS FEVER.

Chile:				
Talcahuano	Aug. 24-30		6	Aug. 30, 1924, about 53 cases stated to be present.
Valparaiso	Aug. 17-30		10	
Iraq:				
Bagdad	Aug. 3-9	1		
Mexico:				
Mexico City	Aug. 17-30	19		
Torreon	Aug. 1-31		2	
Peru:				
Arequipa	July 1-31		1	
Poland				July 6-26, 1924: Cases, 192; deaths, 12.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from June 28 to September 26, 1924.[1]

CHOLERA.

Place	Date.	Cases.	Deaths.	Remarks.
India				Apr. 20-June 28, 1924: Cases, 81,035; deaths, 56,740.
Do				June 29-July 26, 1924: Cases, 26,232; deaths, 15,157.
Bombay	May 4-10	1		
Do	June 29-Aug. 2	6	3	
Calcutta	May 11-June 28	293	259	
Do	June 29-Aug. 9	109	98	
Madras	June 1-21	7	6	
Do	June 29-Aug. 16	19	12	
Rangoon	May 11-June 28	98	76	
Do	June 29-Aug. 9	23	22	
Indo-China				Jan. 1-Apr. 30, 1924: Cases, 45; deaths, 25. Corresponding period 1923: Cases, 65; deaths, 18.
Saigon	Apr. 27-June 28	6	4	Including 100 square kilometers of surrounding country.
Do	June 29-Aug. 9	6	5	Do.
Persia:				
Bushire	June 1-30	1	1	
Philippine Islands				June 15-28, 1924: 32 cases, 22 deaths, including suspects. June 29-July 5, 1924: 5 cases, 4 deaths.
Manila	June 22-28	1		Suspect. Occurring in a non-resident.
Do	July 6-12	1	1	
Province—				
Batangas	July 1-12	4	2	
Bulacan	June 21	1	1	
Do	June 28-July 4	1		
Cagayan	Mar. 30-Apr. 5	1	1	
Laguna	May 18-24	1	1	
Rizal	July 3	1	1	
Santo Tomas	July 6-12	1	1	
Siam:				
Bangkok	May 4-June 28	21	18	
Do	June 29-July 26	6	3	
Straits Settlements:				
Penang	June 1-7	1	1	
Singapore	June 15-28	9	6	
Do	June 29-July 5	2	1	
On vessel:				
S. S. Argalia		1		At Bassein, Lower Burma, India. Case in European member of crew. Case removed to hospital. Vessel left May 16, 1924; arrived June 8 at Durban, South Africa; left Durban June 10 for Trinidad and Cuba.

PLAGUE.

Algeria:				
Mostaganem	July 21-28	4		Seaport.
Argentina:				
Chaco Territory				April, 1924: Cases reported.
Brazil:				
Porto Alegre	July 6-12		1	
British East Africa:				
Kenya—				
Tanganyika Territory	Feb. 24-June 7	1	2	
Canary Islands:				
Teneriffe—				
La Laguna	June 20	1		
Ceylon:				
Colombo	May 11-June 28	11	7	10 plague rodents.
Do	June 29-Aug. 2	12	9	Plague-infected rodents, 17.
Chile:				
Antofagasta	June 1-16	4		

[1]From medical officers of the Public Health Service, American consuls, and other sources.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from June 28 to September 26, 1924—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Amoy	June 15–28		6	
Do	June 29–Aug. 9		13	
Foochow	May 4–June 21		25	Cases not reported.
Nanking	July 20–Aug. 16			Present.
Ecuador:				
Eloy Alfaro	May 16–31	1		
Guayaquil	May 16–June 30	4	1	Rats taken, 23,717; found infected, 107.
Do	July 1–Aug. 15	1		Rats taken, 25,029; found plague-infected, 61.
Posorja	July 1–15	1		
Puna	July 16–31	1		
Egypt				July 2–Aug. 5, 1924: Cases, 12. Total, Jan. 1–Aug. 5, 1924—cases, 344 (corresponding period, preceding year—cases, 1,286.
City—				
Alexandria	Apr. 2	1	1	
Port Said	Apr. 24–May 31	2	1	
Suez	Jan. 2–June 26	11	5	
Do	June 27–Aug. 5	3		
Province—				
Assiout	Apr. 1–June 18	40	31	
Beni-Suef	June 21	3	3	
Charkieh	Jan. 31	1	1	
Fayoum	Feb. 18–June 19	105	32	
Gharbia	Apr. 21–June 17	2	1	
Ghirga	Jan. 17–May 13	10	3	
Kalioubieh	Jan. 6–May 22	10	1	
Kena	Apr. 9–May 17	44	26	
Menoufieh	Jan. 2–June 12	48	31	
Mina	Feb. 5–June 26	39	20	
Greece:				
Kalamata				Reported July 15, 1924: Cases, 29; deaths, 6.
Patras	July 7	36		
Saloniki	July 3–4	2		
Hawaii Territory				July 15, 1924: Near Kukuihaele, Island of Hawaii, 1 plague rat.
India				Apr. 20–June 28, 1924: Cases, 102,874; deaths, 84,656.
Do				June 29–July 26, 1924: Cases, 3,197; deaths, 2,922.
Bombay	May 4–June 21	50	44	
Do	June 29–Aug. 2	5	5	
Calcutta	May 11–June 14	10	10	
Karachi	May 18–June 21	16	13	
Madras Presidency	May 18–31	7	2	
Do	Aug. 10–16	10	6	
Rangoon	May 11–June 28	77	72	
Do	June 29–Aug. 9	112	100	
Indo-China				Jan. 1–Apr. 30, 1924: Cases, 323; deaths, 200. Corresponding period of year 1923—cases, 206; deaths, 192.
Saigon	May 4–June 28	10	2	Including 100 square kilometers of surrounding country.
Do	July 20–Aug. 9	3	1	Do.
Iraq:				
Bagdad	Apr. 20–June 21	121	60	
Do	June 29–July 12	6	4	
Japan:				
Shizuoka Prefecture—				
Higashi				To June 20, 1924: Cases, 2; death, 1.
Java:				
East Java—				
Soerabaya	June 18–21	14	14	
Madagascar:				
Diego Suarez	June 22–July 10	14	8	Seaport.
Moramanga	June 1–30	1	1	Interior.
Tamatave	June 6–30	5	4	Bubonic.
Tananarive Province				Apr. 1–June 30, 1924: Cases, 133; deaths, 128; bubonic, pneumonic, septicemic. July 1–15, 1924: Cases, 22; deaths, 22.
Tananarive Town	Apr. 1–June 30	12	12	
Do	July 1–15	3	3	Bubonic and pneumonic.
Other localities	Apr. 1–June 30	105	97	
Do	July 1–15	19	19	Bubonic, pneumonic, and septicemic.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from June 28 to September 26, 1924—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Persia:				
Abadan	May 1-31	20	12	
Bander Abbas	do	11	6	
Bushire	do	1	1	Landed at quarantine.
Mohammerah	do	111	78	
Peru				May 1-June 30, 1924: Cases, 4; deaths, 6.
Do				July 1-31, 1924: Cases, 6; deaths, 3.
Callao	June 1-30	1		
Do	July 1-31	2		
Huaral	June 1-30	1		
Do	July 1-31	1		
Lima (city)	May 1-June 30	5	5	
Lima (country)	do	1		
Do	July 1-31		1	
Mollendo	do	1	1	
Siam:				
Bangkok	May 4-June 14	3	3	
Do	July 13-19	1	1	
South Nigeria (West Africa):				
Lagos	Sept. 8			Present.
Syria:				
Beirut	July 10-Aug. 10	5		
Union of South Africa				Apr. 27-June 7, 1924: Cases, 28; deaths, 14. Dec. 16, 1923, to May 31, 1924: Cases, 347; deaths, 208 (white, 51 cases, 26 deaths; native, 296 cases, 182 deaths).
Orange Free State				May 11-June 14, 1924: Cases, 21; deaths, 9. June 22-28, 1924: Plague-infected mouse found in Kroonstad District.
Smithfield District	July 13-19	2		In natives on two farms.
On vessel:				
S. S. Amboise	July 10	1		At Marseille, France; removed to quarantine station. Case occurred in an Arab fireman embarked at Aden. Vessel left Yokohama May 30 and Colombo, Ceylon, June 22, 1924.

SMALLPOX.

Arabia:				
Aden	July 20-26		1	
Bolivia:				
La Paz	May 1-June 30	10	9	
Do	July 1-31	5	3	
Brazil:				
Bahia	May 18-24	1		
Porto Alegre	May 18-Aug. 26	1	5	
Rio de Janeiro	May 18-24	2		
Do	July 20-Aug. 16	2		
British East Africa:				
Kenya—				
Mombasa	May 4-31	3		
British South Africa:				
Northern Rhodesia	May 6-June 30	74	1	Natives.
Do	July 1-28	30		
Canada:				
British Columbia—				
Vancouver	June 15-28	11		
Do	June 29-Sept. 6	33		Not including suburbs.
Victoria	Aug. 3-9	1		
Manitoba—				
Winnipeg	July 13-Aug. 1	3		
New Brunswick—				
Restigouche County	June 1-30	7		
Do	July 6-Sept. 6	21		
Westmoreland County	Aug. 17-23	1		
Ontario				June 1-30, 1924: Cases, 24. July 1-31: Cases, 7.
Sarnia	July 20-26	1		
Windsor	June 22-28	1		

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from June 28 to September 26, 1924—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Canada—Continued.				
Quebec—				
Montreal	June 8–14	1		
Ceylon:				
Colombo	July 6–12	1		
Chile:				
Antofagasta	June 11			Under treatment at lazaretto, 2 cases.
Valparaiso	June 1–7		1	This report covers the two principal districts of Valparaiso.
China:				
Amoy	May 11–June 28			Present.
Do	June 29–Aug. 9			Do.
Antung	June 9–29	41	3	
Do	July 7–13	4		
Chungking	May 11–June 28			Do.
Do	June 29–Aug. 9			Do.
Foochow	May 18–June 28			Do.
Do	July 6–12			Do.
Hongkong	May 4–June 28	30	24	
Do	June 29–July 12	3	3	
Manchuria—				
Dairen	May 12–June 28	22	7	
Do	June 29–Aug. 10	4	1	
Harbin	May 13–June 23	2		
Nanking	May 18–June 28			Do.
Do	July 6–Aug. 16			Do.
Shanghai	May 25–31		1	
Tientsin	May 4–June 28	11	1	British municipality.
Chosen:				
Fusan	May 1–31	1		
Do	July 25–31	1		
Colombia:				
Barranquilla	Aug. 3–9		1	
Czechoslovakia				Apr. 1–June 30, 1924: Cases, 7; deaths, 2.
State—				
Bohemia	Apr. 1–June 30	6	2	
Russinia	do	1		
Denmark:				
Copenhagen	May 18–31	3	1	
Egypt:				
City—				
Alexandria	June 4–10	1		
Cairo	Feb. 19–May 27	120	32	
Port Said	June 18–24	1	2	
Do	June 25–July 8	3		
France:				
Limoges	Apr. 1–May 31		2	
Marseille	May 1–31		1	
Paris	May 21–31	2		
Gibraltar	July 21–27	1		
Great Britain:				
England and Wales				May 25–June 28, 1924: Cases, 342. June 29–July 26, 1924: Cases, 213.
Counties—				
Derby	May 25–June 28	159		
Do	June 29–July 26	66		
London	do	1		
Liverpool	Aug. 28	1		Mild. Admitted to port hospital from Lower Bebington District, 2 miles from docks.
Northumberland	May 25–June 28	61		
Do	June 29–July 26	39		
Nottingham	May 25–June 28	29		
Do	June 29–July 26	32		
Yorks (North Riding).	May 25–June 28	54		
Do	June 29–July 26	27		
Yorks (West Riding).	May 25–June 28	5		
Do	June 29–July 26	27		
Greece:				
Saloniki	Apr. 21–May 4	7	2	
Haiti:				
Port au Prince	July 6–12	2		Developed at Cape Haitien.
Hungary:				
Budapest	July 20–Aug. 2	11		

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from June 28 to September 26, 1924—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
India				Apr. 20–June 28, 1924: Cases, 28,396; deaths, 6,753.
Do				June 29–July 26, 1924: Cases, 4,569; deaths, 1,326.
Bombay	May 4–June 28	432	299	
Do	June 29–Aug. 2	129	81	
Calcutta	May 11–June 28	36	32	
Do	July 6–Aug. 9	38	23	
Karachi	May 18–June 28	51	18	
Do	June 29–Aug. 9	16	11	
Madras	May 18–June 28	32	10	
Do	June 29–Aug. 16	66	24	
Rangoon	May 11–June 28	53	21	
Do	June 29–Aug. 9	21	7	
Indo-China				Jan. 1–June 28, 1924: Cases, 4,260; deaths, 1,199.
Saigon	Apr. 27–June 28	145	79	Including 100 sq. km. of surrounding country.
Do	June 29–Aug. 2	43	16	Do.
Iraq:				
Bagdad	Apr. 20–May 24	8	1	
Do	July 27–Aug. 2	1		
Italy:				
Messina	May 26–June 1	1		
Jamaica				June 1–28, 1924: Cases, 141. June 29–Aug. 9, 1924: Cases, 154. (Reported as alastrim.)
Kingston	June 1–28	6		Reported as alastrim.
Do	June 29–Aug. 9	12		Do.
Japan:				
Kobe	May 26–June 21	3		
Nagoya	June 8–14	2		
Tokyo	...do	1		
Java:				
East Java—				
Madoera Residency—				
Sampang	May 22			Epidemic.
Malang	May 25–31	5	1	
Soerabaya	Apr. 13–June 28	501	143	
Do	June 29–July 19	125	35	
West Java—				
Batavia	May 31–June 27	3		
Do	July 6–12	1		
Latvia				Apr. 1–June 30, 1924: Cases, 4.
Mexico:				
Durango	June 1–30		2	
Guadalajara	May 1–June 30	9	4	
Do	July 8–14		1	
Mexico City	May 4–June 28	96		Including municipalities in Federal district.
Do	June 29–Aug. 16	47		Do.
Salina Cruz	May 25–31	1	1	
Tampico	June 14–20	2		
Do	July 1–Aug. 20	8	7	
Tuxtepec	July 3–18	3	1	State of Oaxaca.
Palestine				June 17–23, 1924: 20 cases in northern district.
Samaria Province—				
Samak	May 27–June 2	1		
Paraguay:				
Asuncion	June 2			Present.
Encarnacion	...do			Many cases reported.
Persia:				
Bushire	June 1–30	2		
Peru:				
Arequipa	Jan. 1–June 30		5	
Poland				Mar. 30–June 28, 1924: Cases, 299; deaths, 27.
Do				June 29–July 5, 1924: Cases, 3; deaths, 1.
Portugal:				
Lisbon	May 25–June 28	7	2	
Do	June 29–Aug. 23	15	1	
Oporto	May 11–June 28	18	16	
Do	June 29–Aug. 23	20	16	
Russia				Jan. 1–31, 1924: 2,243 cases.
Siam:				
Bangkok	Apr. 27–June 14	3	5	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from June 28 to September 26, 1924—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Spain:				
Barcelona	July 31–Aug. 6		1	Year 1923: Cases, 160.
Cadiz	June 1–30		5	
Malaga	June 29–Aug. 23		19	
Valencia	June 8–21	3		
Do	July 13–19	1		
Vigo	Aug. 17–23		1	
Straits Settlements:				
Singapore	May 4–24	2	1	
Sumatra:				
Medan	Jan. 1–31	5		
Switzerland:				
Berne	May 25–June 28	22		
Do	June 29–July 26	9		
Syria:				
Damascus	May 28–June 12	12		
Do	Aug. 7–13	6		
Tunis:				
Tunis	May 27–June 30	17	4	
Do	July 1–Aug. 11	8	10	
Turkey:				
Constantinople	June 1–7	1		
Do	Aug. 17–23	1		
Union of South Africa				Mar. 1–June 30, 1924: Cases, 167 (white, 15; native, 152). June 29–July 5, 1924: Outbreaks.
Cape Province	May 4–31			Outbreaks.
Do	July 20–Aug. 2			Do.
East London	July 27–Aug. 2	1		
Orange Free State	May 4–10			Do.
Transvaal	May 4–31			Do.
Do	July 20–26			Do.
Johannesburg	July 6–12	1		
Yugoslavia:				
Belgrade	July 28–Aug. 3	1		Do.
On vessels:				
S. S. Karoa	May 7	1		At Durban, South Africa, from Bombay, India. Vessel left Bombay Apr. 16, 1924. Patient, European.
S. S. Mount Evans	July 8	1		At Key West, Fla., from Manchester, England.

TYPHUS FEVER.

Algeria:				
Algiers	May 1–June 30	24	9	Year 1923: Cases, 1,166, of which 27 were in the military population.
Do	July 1–31	1		
Bolivia:				
La Paz	do		1	
Brazil:				
Porto Alegre	June 1–7		1	
Bulgaria:				
Sofia	Aug. 17–23	1		
Chile:				
Antofagasta				June 16, 1924: 2 cases in Lazaretto.
Concepcion	May 20–26		3	
Do	July 8–21		3	
Iquique	June 22–28		1	
Talcahuano	May 25–31	2		
Do	June 29–Aug. 23	16	11	Aug. 23, 1924: 80 cases reported present.
Valparaiso	May 25–June 21		11	
Do	June 29–Aug. 16		17	
China:				
Antung	June 2–16	6		
Chungking	May 11–June 14			Present.
Chosen:				
Chemulpo	May 1–June 30	10		
Do	July 1–31	6	2	
Seoul	May 1–June 30	43	5	
Do	July 1–31	2		
Czechoslovakia				Apr. 1–June 30, 1924: Cases, 6.
State—				
Slovakia	Apr. 1–June 30	4		
Egypt:				
Alexandria	June 25–Aug. 5	4		
Cairo	Feb. 19–May 20	38	9	
Port Said	July 24–Aug. 5	3		

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from June 28 to September 26, 1924—Continued.

TYPHUS FEVER—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Esthonia				Apr. 1–June 30, 1924: Cases, 37.
Germany:				
Coblenz	July 13–19	2		
Great Britain:				
England—				
St. Helens	Aug. 7–Sept. 8	5		One suspect case, July 10, 1924. Locality, vicinity of Liverpool.
Ireland—				
Dublin	June 8–14	1		
Do	July 13–19	1		
Lismore	July 19	1		
Longford	do	1		
Greece:				
Saloniki	Apr. 20–May 4	6		
Iraq:				
Bagdad	Apr. 27–May 10	2		
Latvia				Apr. 1–June 30, 1924: Cases, 108.
City—				
Riga	June 1–30	1		
Mexico:				
Durango	July 1–31		2	
Guadalajara	May 1–June 30	2	2	
Mexico City	May 4–June 28	59		Including municipalities in Federal district.
Do	June 29–Aug. 16	53		Do.
Torreon	July 1–31		2	
Palestine:				
Acre	Aug. 19–25	1		
Jaffa	June 17–23	1		
Do	July 8–Aug. 25	2		
Jerusalem	July 1–Aug. 25	5		
Kantara	July 15–21	1		
Khulde	Aug. 17	1		
Tiberias	Aug. 19–25	1		
Peru:				
Arequipa	Jan. 1–June 30		4	
Poland				Mar. 30–June 28, 1924: Cases, 2,947; deaths, 277.
Do				June 29–July 5, 1924: Cases, 73; deaths, 7.
Portugal:				
Oporto	June 15–21		1	
Russia				Jan. 1–31, 1924: 14,275 cases.
Spain:				
Barcelona	July 10–16		1	
Syria:				
Aleppo	June 8–14	1		
Damascus	July 14–20	1		
Tunis:				
Tunis	May 27–June 9	4		
Turkey:				
Constantinople	May 18–June 21	7	2	
Do	July 6–Aug. 16	4	1	
Union of South Africa				Mar. 1–June 30, 1924: Cases, 418; deaths, 45.
Cape Province				Mar. 1–June 30, 1924: Cases, 249; deaths, 23.
Do				July 6–12; Outbreaks.
Natal				Mar. 1–June 30, 1924 Cases, 27; deaths, 5.
Do	July 6–Aug. 2			Outbreaks.
Durban	Apr. 20–June 28	2		
Orange Free State				Mar. 1–June 30, 1924: Cases, 83; deaths, 11.
Do				June 1–July 5: Outbreaks.
Transvaal				Mar. 1–May 31, 1924: Cases, 39; deaths, 5.
Johannesburg	May 11–24	2		
Do	June 29–July 26	2		

YELLOW FEVER.

Brazil:				
Pernambuco	May 11–17	2	1	
Salvador:				
San Salvador	June 10–Aug. 25			Present in San Salvador and vicinity.

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